

AMERICAN RAILROAD JOURNAL

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RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, *Editor.*

SATURDAY, SEPTEMBER 11, 1858.

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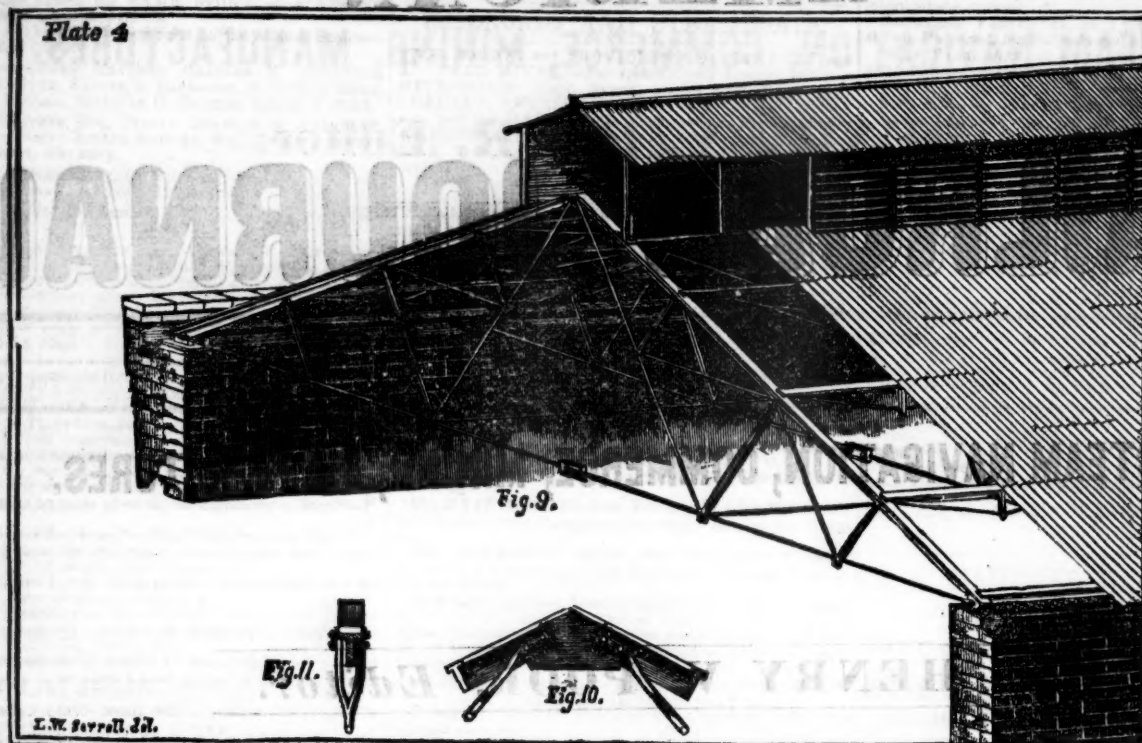
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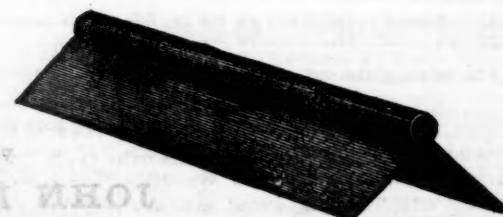
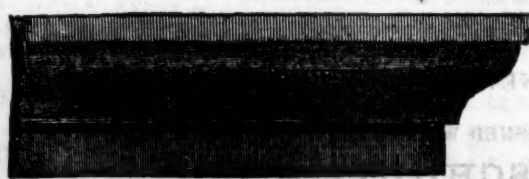
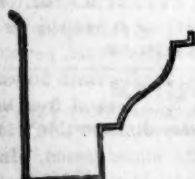


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SATURDAY, SEPTEMBER 11, 1858.

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American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO. No. 9 SPRUCE ST.

New York, Saturday, September 11, 1858.

English and American Railroads Compared.
(Editorial Correspondence of the R. R. JOURNAL.)
LONDON, August 18th, 1858.

If railroads could be worked by their owners, we should soon cease to hear complaints about their unproductiveness. Let any railroad become the property of ten practical men and let them divide among themselves the various departments of service—one taking charge of track—another of the goods traffic—another of the passenger transportation—another of the locomotive department, and so on, does any one doubt that reform and improvement would be instantly seen in its management and income? The proper motive would at once be applied for the exercise of vigilance, energy and economy in each branch of service. All would be managed to a common end. The attention of every person having a responsible position would be constantly directed toward simplifying, and reducing the cost of carrying on his department. The expenses of railroads under such a system would soon be reduced to the lowest possible minimum, just as, after a long experience and training, they are in well conducted manufacturing establishments, owned and conducted by individuals. In such, a steady improvement is visible, whereby, each year, a better article is produced at less price. Do we see any such improvement in the management of our railroads? On the other hand, is not the cost of operating

them steadily increasing—thus reversing the results obtained in all other enterprises and business operations? Do they not seem to have fallen into a trough from which nothing can serve to extricate or put them on their right course?

In the history of railroads in this country, one would have supposed that some reformer would have risen to discover and point out the abuses which exist and the remedies for them in so striking and convincing a manner as to have carried with him the conviction and co-operation of the public, and have instituted a new era in railway history. That such a person has not appeared proves conclusively the viciousness of the existing systems of management. Do the regular establishments in this country, the army, navy, or church ever produce superior men? Seldom, or never. Yet these establishments contain the best and most cultivated minds in the country. But their duties being prescribed according to a given routine, they soon become little better than servile copyists or imitators, lose all desire and faculty to act up to their former ideals, and turn out to be little better than dead rubbish. The English thought that they were sending a very fine army to the Crimea at the commencement of the Russian war. Individually, each man sent out was a hero; but collectively, they fell a sacrifice to the incapacity of leaders who had held commissions and passed themselves off as competent in their several departments—many of them for half a century. The capacity for success grew out from the experience gained during the progress of the war, which forced the leaders to quit a routine which they had followed all their lives, to shape their actions to the exigencies of the moment, and the conditions in which they found themselves placed. Is there not some method by which railroads can be taken out of the category of red-tapeism, by which a living principle can be introduced to take the place of prescription or habit? There is one way in which it can, and that is to supply an adequate motive to good conduct, by rewarding merit at its worth. Till this is done, railroads, wherever they may be, will drag along in their beaten tracks of dulness and routine, and become worse managed and less productive year by year.

What is peculiar to the railways of England and the United States grows, chiefly, out of some differ-

ence between the two countries. The long passenger car in use in the United States is rendered necessary by its climate. There is no mode of warming the English passenger car. The latter, first class, car is more comfortable than the American first class, but to ride in it one must pay twice the average charge in the United States. The fare in second class cars in England equals just about three cents per mile. In these cars you have nothing warmer or softer than painted wood work. In fact, there is nothing but boxes with seats on two sides. The third class cars are still more uncomfortable, so as to correspond in grade and aspect to the lowest class of travelers; the average rate of fare in these is .017 cents, per mile—very nearly equal to the first class fare on some of the best roads in America. In addition to a high rate of fare, baggage is sharply looked after. For two fair-sized trunks, the traveler between Liverpool and London has to pay \$2.50 extra baggage. Traveling in England is at best twice as expensive as in America.

Another excellence of English railroads is what is termed the fishing of the rails. In the United States one great cause of deterioration of way, and of annoyance to travelers, is the broken joint. No two rails ever being upon the same level, the head of each one receives a violent blow from the wheels, which soon abrade and destroy it. None of this concussion, with the peculiar noise caused thereby, is felt on English roads. Consequently, the rails upon them last much longer than upon American roads. While upon the latter great care is taken to give the joint a firm bearing, upon English roads the end of the rail is entirely unsupported except by the fishing bars—the ballasting not being allowed to touch this portion of the rail. I think it very doubtful whether the extreme severity of climate in the United States would permit the construction of railways in the Northern States in a similar manner. With four feet of frost in the ground, it would be a very difficult thing to keep the track in place in the winter season. In the Southern States where this objection does not exist, all the roads should make use of the fishing bars. The whole extent of the Mobile and Ohio railroad is laid with them.

With the exceptions named embracing the more perfect and more costly structures, there is nothing

that particularly distinguishes the roads of the two countries. In the construction of the locomotive, I do not know that we have anything valuable to learn from our neighbors. Some of the differences in the details of working them I shall point out in future communications.

Pittsburg, Fort Wayne and Chicago R. R.

At a meeting of the stockholders of the Pittsburg, Fort Wayne and Chicago Railroad Company, held at Pittsburg on the first inst., the following statement was submitted:—

Dr.	Dec. 31, 1857.	June 30, 1858.
Total cost of road.	\$14,048,769 75	\$14,279,708 76
Real estate	971,521 59	960,423 48
Stocks and Bonds.	86,000 00	91,100 00
Materials on hand.	121,210 81	102,216 22
Other available assets	171,715 84	250,023 16
Due from Wm. Lamer, jr.	77,141 08	69,791 93
Acc'ts not available	31,949 38	19,735 94
Coupons due July 1, 1858		8,489 25
Coupons due from Jan'y 1, 1858, to April 1, 1859		172,865 00
Balance Income Account	41,444 59	125,241 40
Total	\$15,553,234 39	\$16,079,590 14
Cr.		
Capital Stock	\$6,230,259 25	\$6,257,039 94
Funded Debt	7,371,000 00	7,956,075 00
Floating Debt	1,951,875 14	1,866,475 20
Total	\$15,553,234 39	\$16,079,590 14

The earnings of the road for six months ending June 30, 1858, as compared with the same period in 1857, are as follows:—

	1858.	1857.
From freight	\$297,695 22	\$327,146 44
" passengers	350,509 64	464,675 27
" transportation of mail	16,893 74	26,893 74
" rent of road	28,741 94	
" miscellan's earnings	1,817 03	744 38
" rents	857 50	1,121 00
Total earnings	\$796,515 07	\$820,580 82
Transportation expenses	455,568 21	251,007 87
Net earnings	\$250,946 86	\$299,572 95

The total decrease in net earnings of the road for the six months ending June 30, 1858, as compared with the same period in 1857, is \$58,626 09.

The Directors' Report states that a contract has been entered into with the Pennsylvania Railroad Company, to furnish all the chairs, spikes, frogs and switches necessary to complete the road into Chicago. Over four thousand tons of the rails have been already delivered and carried out upon the road. It is expected that the last rail will be laid by the close of October. The Report concludes thus:

"The earnings of the road for the first six months of the year have been small—too small for the capital invested—and if we had no greater promise from a completed road, too small for the hazard of the enterprise. It is hardly necessary to repeat to you the causes which have produced such an unsatisfactory result, and to assure you that they are but temporary. The road must be completed, and on a solid basis of capital, and not pressing debt before it can be made to meet the expectations of its friends and proprietors. We would urge every shareholder to use his influence wherever he can to hasten the funding of the

floating debt; for dividends and, to some extent, the profits of working the road, are dependent on that event."

Detroit and Milwaukee Railway.

INTERESTING RAILROAD HISTORY.

Our readers are already aware of the completion of this important road through to Mill Point on Lake Michigan. It was announced that the work of track laying would be finished on Saturday, Sept. 4th, but in point of fact the last rail was not laid till 5 p. m. on Monday, Sept. 6th, when the final spike was driven, and the Detroit and Milwaukee Railway—a work of strange vicissitudes through laborious years of care and toil—stood complete at last. On the 7th, the first through train passed over the road, and to-day (8th) the Directors go over the line on a tour of inspection.

An event of so much importance to the business and growth of our city and the development of the rich, northern half of the State, will justify us in sketching briefly the outlines of its history.

Probably there is no railroad in the United States that can produce so curious and amusing a record of events, so many ups and downs, so many short corners turned, so many financial schemes mixed up with, such complicated transactions, so many different owners, such a variety of side scenes and events attached, so checkered and eventful a history. It is interesting and peculiar, and will well repay a hasty examination.

The road runs from Detroit River to Lake Michigan, a distance of 185 miles.

As far back as 1834, in good old Territorial times, and when Gov. Porter was the Executive by appointment of the President, a charter was obtained from the Legislature of the territory to build a railroad from Detroit to Pontiac. This act was approved March 7. The capital stock of the Company was fixed at \$100,000. Alfred or "Salt" Williams and Sherman Stevens, both of Pontiac, were the principal stockholders and managers, they owning \$79,000 of the stock, the balance being distributed among various other parties. They continued their control up to 1840, when the general prostration of financial matters reached them in the wide sweep of the "crisis" of that day.

Early in the following year work was commenced upon this road, the right of way being procured and considerable grubbing and some grading being done between this city and Birmingham. In March of the same year, on the 26th, an act amendatory to the charter was passed, authorizing the stockholders of the Company to establish the "Bank of Pontiac" at Pontiac, fixing its capital at \$100,000, and making the stock of the road—being as much more—liable for the debts of the Bank. This institution went immediately into operation, and continued its business up to the revolutions of 1840, when it went down before the storm in common with almost every Bank in the State.

The work progressed slowly. Means absorbed in other transactions could not readily be diverted to this purpose, where they were likely to prove, in more senses than one, a permanent investment. Little by little the grading was accomplished until the big swamp between this city and Royal Oak was reached. This proved a fatal slough. The work sank in it inextricably and came to a dead stand-still, and there remained until 1838, when—March 5th—an act was passed by the Legislature of the newly-admitted State loaning the credit of the State for \$5,000,000, to aid in the completion and extension of various railroads, either projected or in precarious existence. One hundred thousand dollars of this money was obtained, and with it came opportune relief. The swamp was passed, and the autumn of the same year saw the completion of the road to the Oak, then and now the first station. Of all the money appropriated by the State to aid in the prosecution of these and kindred enterprises, this \$100,000 was all that was ever spent in the State north of the line of the Central Road.

It was about this time that the grand railroad

policy of the State was inaugurated—a policy which was designed by its originators to cover the State with these roads, and add untold millions to its prosperity. The Detroit and Pontiac was to be pushed to its extreme western terminus in the woods of Oakland County. The Central was to be extended on to St. Joseph. The Southern was to start at Monroe and terminate at New Buffalo. A road was to be built at Ypsilanti to Tecumseh and Jonesville, in an air line between this city and Chicago, and also between Detroit and St. Louis. The Railroad Era was upon us, and the State Government went sailing off in the argosies of boundless expectation after the golden fleece.

March 22, 1857, an act was passed authorizing the Board of Internal Improvement to buy the Detroit and Pontiac railroad, and \$75,000 was appropriated therefor. The purchase, however, was never made.

About a year later, a movement was made by the State to get back its loan, and a foreclosure of the mortgage held by the State was attempted under Peter Morey, Esq., then Attorney General. This, under the circumstances, became no easy matter to do. Every year had witnessed more or less of legislation relative to this road, in the way of extensions, amendments, etc., until it became a nice question as to whether the foreclosure could legally be effected. At this point—in 1839—we notice the first connection of Henry N. Walker, Esq., with the road. As its attorney, he gave a written opinion that the State could not legally effect the foreclosure in the manner in which it was attempted, and predicted the final abandonment of the suit. The sale under the mortgage was, nevertheless, advertised in one of the Detroit papers through Mr. Morey's administration and into that of his successor, Zephaniah Platt, Esq., when it was finally dropped, but not till the advertising expenses alone had reached the sum of \$114.

In the same year—1839—one of the curious and interesting side histories of the enterprise began. Some two years before, the Legislature of New York had passed a General Banking Law, under which banks sprang up in great numbers. By means of bonds of the road and collateral security out of the Bank of Pontiac, \$100,000 of the State Bonds of Indiana were procured, and with these "the Merchants' Bank of Buffalo" was started in that city. This bank kept up for about two years, we believe, when it burst up in the general banking collapse of the time.

The road, meantime, made slow progress.—Banking enterprises were more immediately promising and profitable. It wound its very slow length along till at length, in the summer of 1841, it reached Birmingham.

The road to Royal Oak was run by horses only, the track being the old strap rail. M. E. Van Buren was the agent in this city, and H. J. Buckley, now of the firm of G. O. Williams & Co., agent at the Oak. Upon the completion of the road to Birmingham, the first locomotive was put on, then called the *Sherman Stevens*, but now known as the *Pontiac*. This engine, after doing all manner of work, was transferred this year to the Port Huron and Owosso road, where it is again doing the pioneer's service. Mr. Buckley was conductor for nearly two years—the first conductor on the D. & M. Railway. On the completion of the road to Pontiac, G. O. Williams became conductor, which position he held for a considerable time.

In 1840 a second side speculation opened a new field in its history. This was known as the "Salt Speculation" in New York. Into its details we will not go. Suffice it that eastern parties, having an indebtedness against the Bank of Pontiac, commenced an action against the Bank, recovered judgment, and the road was sold on an execution sued out under the amendatory act. It was bid in by Gurdon Williams, of this city, and Giles Williams and Dean Richmond, of Buffalo, and, if not immediately, shortly after, transferred to Horace & Hamilton White and Thomas T. Davis, of Syracuse. These sales took place in 1841.

The building of the road was then pushed with more energy. While it made no very rapid ad-

vances as measured by the strides of this fast age, still it kept pace with the locomotion of these troublous times. At length it was completed to Pontiac, and July 4th, 1848, a grand celebration was had, at which Gov. Barry, Attorney General Walker and other State officers were present, congratulatory speeches were made and a public dinner and other formalities gone through with.

The road was then leased by its Syracuse owners to Gurdon Williams for ten years, who was to pay a graduated amount of rental averaging about \$10,000 a year. At this time the road started from the river, but the passenger depot was at the bridge over the present railroad on Jefferson avenue. After a short time, Mr. Williams, by permission of the Council, laid a track through Gratiot street to Andrew's R. R. Hotel, and made his passenger depot there, the Central Road occupying the little building on the west side of Campus Martius adjoining Eldred's leather store, for the same purposes. The road, however, soon encountered violent opposition on the part of the inhabitants along the line of Gratiot street. A long and tedious litigation ensued, and after maintaining possession several years, he was finally compelled to leave the street, when he landed his passengers at the present intersection of Gratiot street with the railway. Mr. Williams continued to operate the road till 1849, when he was bought out.

On April 3d, 1848, a charter was granted to Gurdon Williams, E. A. Brush, Alfred Williams and others for the construction of the Oakland and Ottawa Railway from Pontiac to Grand Haven, the same to be forfeited if the work was not actively commenced in 5 years from date. H. N. Walker, Esq., was elected its first President, but operations were not begun till 1852.

In the same year, 1848, steps were taken to extricate the Detroit and Pontiac Road from the slough of debt in which it was buried wholly from sight. Valid claims of greater or less magnitude existed against it on the part of those holding title under the execution and who were in actual possession, on the part of the original stockholders, on the part of the State for its loan and the accumulated interest, on the part of every creditor of the Bank of Pontiac, on the part of the State of Indiana whose bonds had been returned and the security for which was none of the best, and lastly on the part of Mr. Williams who had an unexpired lease of the road of about two years. With all this array of indebtedness, the task seemed well nigh hopeless of ever safely taking hold of the enterprise and pushing it to a paying point. But the effort was made, and with success.

After a tedious negotiation, the State was induced to take \$15,000 in money and \$18,500 of its own indebtedness in exchange for the \$100,000 loan mortgage. The choice lay between getting this sum or nothing, and appearances then justified the course pursued. The State had complicated its own interests by constant and often unwise legislation, acts enough having been passed with reference to this Road to fill a volume. Negotiations with regard to the other claims were equally successful, and finally, by the payment of \$83,000, H. N. Walker of this city, who had set these negotiations on foot, Dean Richmond of Buffalo, Alfred Williams and Horace Thurber of Pontiac, Hamilton and Horace White of Syracuse, N. P. Stewart, then of Cincinnati, and Jas. B. Plumb of Albany, became the owners of the Road.

Vigorous efforts were at once made in the work of improvement. Mr. Walker was elected President and went to New York, where he succeeded in selling the bonds of the road to a sufficient amount to purchase T rail with which to relay the whole road, and also to purchase the present passenger depot and sit at the foot of Brush street.

In 1852 work was commenced on the Oakland and Ottawa road. In April, 1853, Mr. Walker went to Europe for the first time on negotiations connected with the road. He was absent three months, and in that time purchased with the bonds of the company 2,600 tons of iron, sufficient to extend the track to Fentonville. They had previously—March 20, 1850—secured the passage of an act authorizing the two roads to make a connection at Pontiac, so that business was done without interruption.

The act of consolidation between the two roads was passed Feb. 13, 1855, and on the 21st of April the two companies appointed committees to carry out this law. May 12th, the consent of the two parties was filed in the office of the Secretary of State, and the consolidation of the two roads became complete under its present name. In July, 1855, Mr. Walker made a second trip to Europe, this time to negotiate the bonds of the Detroit and Milwaukee Railway. This time he was gone 15 months, and after long and strenuous effort succeeded in selling the company's bonds to the amount of \$1,250,000. With these funds sufficient iron was bought to complete the road to Lake Michigan.

The negotiation was a difficult one. A growing feeling of distrust in railroad securities was evident among the money changers of Europe, and the new road was not generally known and its important position appreciated. Finally, however, after the expiration of more than a year, Mr. Walker's assiduous and unwearied labors were brought to a successful termination, the loan was secured and the means of finishing the road obtained.

The work was then prosecuted with renewed vigor, and station after station along the line of the road was reached and passed. Still, last year, it was seen that there was not sufficient means to stock the road as was necessary, while other expenses would have to be incurred, so that a threatening deficit still remained to be provided for in some manner. Again, and for the third time, Mr. Walker sailed from our shores. The obstacles to be overcome were many and formidable, and the prospects anything but cheering. Yet with hope and unflinching zeal the negotiations were plied, and finally, after nine months' unremitting labor, the well known recent arrangement with the G. W. Railway Co. was effected. The road then passed from the control of the old company into the hands of its present management. After a chequered life of no less than twenty-four years, the Detroit and Milwaukee Railway becomes to-day a verity among the roads of the country, and a long and curious history was brought to close.

Its prospects, influence, &c., must form the subject of another article.—*Detroit Tribune.*

North-Eastern (S. C.) Railroad.

A meeting of the stockholders of this road was held at the Hall of the Bank of Charleston, on Friday, 27th August, 1858.

The President read the Report to the stockholders, of which the following is an abstract:—

At the annual meeting on the 7th April last, the following resolutions were unanimously adopted:

Resolved, That the Board of Directors are authorized, if they deem it expedient, to issue 6,000 additional shares of the stock of the Company, on which a semi-annual dividend of two dollars per share shall be guaranteed, the said stock not to be sold under its par value of fifty dollars per share.

That this Company shall have the privilege of redeeming or renewing the said stock at a rate not above par, at the expiration of fifteen years from the date of its issue.

That the holders of the preferred stock shall have the privilege of converting the preferred stock into the regular stock of the Company, and the said Board of Directors are further authorized to place in the hands of three appointed Trustees the second mortgage and bonds already issued, as collateral security, to such persons as shall become the purchasers of the said stock.

The Board had found it impossible to dispose of these bonds at a fair value, although they were able to use them as collateral securities, upon which loans, endorsements, and materials could be obtained. From the fact of the first mortgage upon the road being only for \$700,000, and the second for \$300,000—making a total of \$1,000,000 upon its cost, which, when fully completed

and equipped, may be assumed at \$2,000,000—it seemed reasonable to rely upon their early sale, and the settlement of the indebtedness for which they were pledged. But in this expectation they were disappointed, and recourse was then had to the expedient of issuing a preferred stock as above described.

The advantage of this measure to the Company was, that it would enable them to fund \$300,000 of their debt.

The sales have only, thus far, been \$51,750—and, consequently, the Board have been greatly disappointed in their expectation of meeting the indebtedness for which these second mortgage bonds were pledged.

The first mortgage upon the road was for \$700,000, covering 1,400 bonds of \$500 each, of which there are unsold 353, at their par value of \$179,000
And pledged for the payment of 140,300

Showing an excess over indebtedness of .. \$38,700

The second mortgage was for \$300,000, covering 600 bonds of \$500 each, of which 14 have been sold, 145 have been deposited with the Trustees of the preferred stock, issued and to be issued—leaving 441 bonds unsold, at their par value of \$220,500
And pledged for the payment of 155,500

Showing an excess over indebtedness of .. \$65,000

As above stated, 145 second mortgage bonds have been deposited with the Trustees, at \$500 \$72,500
Against which there has been issued 51,750

Leaving on hand \$20,750

If the first and second mortgage bonds and preferred stock on hand were sold at their par value, it would liquidate the debts for which they were pledged, and leave an excess from the first of \$38,700, from the second of \$65,000, and from the last of \$20,750, or an aggregate of \$124,450, to be applied to current indebtedness of \$30,000, and interest due on 1st prox. \$18,000. But to realize first mortgage bonds at this time would involve a loss upon their value of certainly \$17,900, and probably \$26,850.

The most earnest and active attention of the Board has recently been directed to such negotiations as would enable them to discharge the liabilities of the Company.

To meet engagements the Board suggest that a call be made upon all the shareholders of thirteen dollars (\$13) per share; and that to those who respond, the Directors should be instructed to issue the preferred stock. If this meets concurrence, the proportions assigned the shareholders would be as follows:

	Shares at \$13.	
City Council of Charleston	8,000	\$104,000
State of South Carolina	4,400	57,200
Banks	1,600	20,800
Individuals	3,904	50,752
Shares	17,904	\$232,752

The receipts of the road from all sources for the five months from 1st March, ending 31st July, were \$34,373 19—an amount which covers our actual running expenses and the interest on our indebtedness.

It was not in thorough operation until the 8th October last, consequently there are no means of

comparing its present receipts with those of a corresponding period in a previous year.

The following resolutions were unanimously adopted, viz:

Resolved, That in the opinion of this meeting, the only timely, practical and effectual measure that can be adopted to extinguish the debts of the Company and conclude the payments for construction, is that recommended by the Direction to the adoption of Council, to wit: That the City, the State, and the Banks shall unite in furnishing the money for the remaining \$240,000 of second mortgage bonds at par and in rateable proportion to their several subscriptions.

Resolved, That this measure is recommended by the following considerations:

1. It affords protection to the stockholders against the possible sacrifice that might attend a pressure for payment on the part of creditors.

2. It gives them an undoubted security for the money advanced.

3. It averts the loss that must inevitably follow from the sale of these bonds to the public.

4. It enables the Directors to complete their arrangements to pay or consolidate the debts due for construction, and to apply the future net income to the payment of interest and dividends.

Therefore, *Resolved*, That the Directors be requested and authorized to renew their application to Council and the Banks, and to apply, in like manner, to the State at the next session of the Legislature for the foregoing aid.

Resolved, That the Directors be requested to extend their appeal for aid to the private stockholders, and procure from them a proportionate contribution, if possible.

Journal of Railroad Law.

RAILROADS VS. HIGHWAYS.—RIGHTS OF LAND OWNERS.

Williams agt. the New York Central Railroad.

This case, to which we referred last week, was recently tried in the Court of Appeals in this State, on appeal from the Supreme Court.

The action was brought for the purpose of recovering damages alleged to have been sustained by the plaintiff, in consequence of the appropriation by the defendant (which has incorporated into itself, and succeeded to the rights of, the late Syracuse and Utica Railroad Company) of a strip of land sufficiently wide for two tracks, extending along the centre of Washington street, in the city of Syracuse, and the running thereon of about forty trains of cars *per diem*, and also for the purpose of restraining the defendant from further entering upon or running over said street with its engines and cars along and past the plaintiff's lands. The cause was tried at the Onondaga circuit, without a jury, and the justice presiding at the trial found the following facts: That prior to 1836, and to the organization of the Company to whose rights the defendants had succeeded, the plaintiff was and still is the owner in fee simple, in his own right, of lands fronting upon Washington street, and upon that part of it where the railroad is constructed, which lands extend to the centre of the street; his fee on the land occupied by the street never having been granted away or surrendered; that prior to the location of said railroad, the plaintiff, then a large owner of vacant lands between the village of Syracuse and Lodi, desiring to bring such lands into market as village property, having joined with other owners of contiguous and laid out such lands into blocks and village lots for that purpose, in conjunction with such contiguous owners laid out Washington street, and voluntarily and gratuitously appropriated and de-

icated the land occupied by it to the uses and purposes of a public street and highway, and filed a map of such street in the proper office, and that, in virtue of such dedication and the acceptance thereof by the public authorities of the village of Syracuse, it has since been used and occupied as a public highway for the ordinary passage of carriage and foot passengers; that in building their railroad, the Syracuse and Utica Railroad Company located and constructed them for the distance of a mile or more, upon Washington street, which they used and occupied as and for a railroad, from the time of its construction until 6th of July, 1853, when the defendant took possession, and has since used and occupied it for the same purpose; that the plaintiff at the time of the construction of the railroad, owned other lands extending to the centre of said street which had been sold and conveyed by him before the commencement of this suit, but in the sale of said lands the plaintiff did not part with or transfer any claim which he might have against the railroad company for damages in respect to such lands, occasioned by the construction and use of said railroad; the plaintiff has never received any compensation for the occupation of his lands in the street, nor has any been assessed, nor has he consented to the construction of the railroad in said street; that the public authorities of the village and city of Syracuse have assented to and sanctioned the location of the railroad in said street, and its use for that purpose, upon conditions which have been observed by the Company. Judgment was rendered for the defendant. Upon appeal, the Supreme Court, at general term in the fifth district, affirmed this judgment and the plaintiff appealed to this court.

SELDEN, J.—This is a suit in equity, the object of which is to obtain a perpetual injunction restraining the defendants from continuing to use and occupy with their railway a portion of a certain highway or street, in the village of Syracuse, known as Washington street, and to recover damages for its past occupation. Washington street was gratuitously dedicated to the use of the public by the plaintiff and others through whose land it was laid; and the Utica and Syracuse Railroad Company, to the rights and liabilities of which the defendants have succeeded, constructed their railway upon it without making any compensation to the plaintiff, and without his consent. At the time the track was laid the plaintiff was the owner of a large number of lots fronting upon the street, a portion of which he has since sold, with a reservation of his claim against the railroad company for damages, and a portion of which he still owns.

The damages which have accrued, both upon the sold and unsold portions of the premises, are claimed in this suit.

The defendants in justification of their occupation of the street show that the charter of the Utica and Syracuse Railroad Company (Laws of 1836, 319, §11) declares that their road might "intersect" and be built upon any highway, and that this right is confirmed by the General Railroad Act of 1850.

They also show the express consent of the municipal authorities of the village, as well as of the city of Syracuse, to such occupation. The principal question, therefore, and the only one which I deem it necessary to consider, is whether the State and municipal authorities combined could

confer upon the railroad company the right to construct their road upon this street without obtaining the consent of the plaintiff or making him compensation.

If the railway encroaches in any degree upon the plaintiff's proprietary rights, then it is clear that the constitutional inhibition, which forbids the taking of private property for public use "without just compensation" applies to the case.

It is conceded that by the dedication the public acquired no more than the ordinary easement or right to use the premises as a highway; and that the plaintiff continues the owner in fee, in respect to the unsold lots to the centre of the street subject only to this easement; but it is contended that the taking and the use of the street by the railroad company does not encroach upon the reserved rights of the plaintiff, because the use of a street for the purposes of a railroad is only "one of the modes of enjoying the public easement."

[We omit here the greater portion of the opinion, in which a number of cases, bearing upon this subject, in this and other States, are discussed. If any one desires to refer to them, the opinion may be found in full in vol. 16 N. Y. Rep. (p. 97) just issued.]

I have no hesitation in coming to the conclusion that the dedication of the land to the use of the public as a highway is not a dedication of it to the use of a railroad company; that the two uses are essentially different; and that, consequently, a railroad cannot be built upon a highway without compensation to the owners of the fee. The legislative provisions on the subject were, probably, intended to confer the right so far only as the public easement is concerned, leaving the companies to deal with the private rights of individuals in the ordinary mode. If, however, more was intended, the provisions are clearly in conflict with the constitution, and cannot be sustained.

It follows that the defendants, in constructing their road upon Washington street without the consent of the plaintiff and without any appraisal of his damages or compensation to him in any form, were guilty of an unwarrantable intrusion and trespass upon his property, and that he is entitled to relief. Although he had a remedy at law for the trespass, yet, as the trespass was of a continuous nature, he had a right to come into a court of equity, and to invoke its restraining power to prevent a multiplicity of suits, and can, of course, recover his damages as incidental to this equitable relief. There may be doubt as to his right to recover in this suit the damages upon the lots which have been sold because, as to those lots, there was no occasion to ask any equitable relief, and to permit the damages to be assessed in this suit, in effect deprives the defendants of the right to have them assessed by a jury. But as this question has not been raised it is unnecessary to consider it.

The judgment must be reversed, and there must be a new trial, with costs to abide the event.

STEAM IN THE CITY—NEW YORK AND NEW HAVEN RAILROAD MOTION FOR INJUNCTION DENIED.

The JOURNAL of August 14, contains the decision of the Court of Common Pleas in the case of the Harlem Railroad Company. A decision in the case of the New Haven Company has just been rendered by Justice Nelson of the United States

Circuit Court. As the grounds taken in this decision are substantially the same with those in the case of the Harlem Road, there is no need to repeat them. We give merely the concluding paragraphs of the decision of

NELSON, J.—Construing the eighth section of the act of 1848, in connection with the charter of the Harlem Road, and they must be taken as acts *in pari materia*, I cannot resist the impression that the meaning and intent of the Legislature were to confer upon the New Haven Road no greater privileges than had been or might be conferred on the Harlem. They are authorized to run their cars, &c., over the road of the latter Company from the junction at Williamsbridge to the City of New York, and "as far into the said city as the said Harlem Company may extend." The power conferred is simply to use the Harlem Road, and nothing more, as they possess no right to construct one in the city. And it would be singular if the Legislature had vested in this Company a right as against the Common Council superior to that of the Harlem Company.

Besides, we are of opinion that both the New Haven Company and Legislature are to be presumed to have had a knowledge of the limitation of the use of the road by the Harlem Company at the time of the passage of the act of 1848, and hence that the privileges granted should be construed as subject to this limitation.

Without pressing the argument further, I am satisfied that the city authorities possessed the power to pass the ordinance of the 27th of December, 1864, and that the motion for the injunction should be denied.

Spartanburg and Union Railroad.

The annual meeting of the stockholders of the Spartanburg and Union Railroad Company was held in Unionville on Wednesday, 25th inst.

We extract the following from the report of the President, as published in the Unionville Journal:

No apprehensions need longer be entertained that the grading will all be finished before the 1st of January next.

Our whole line of road is now under contract, except for a part of the 70,000 cross-ties necessary to lay the track between Union and Spartanburg.

Of the \$350,000 of the bonds to be endorsed by the State, \$150,000 and our uncollected subscription is set apart (by the direction) to extinguish our indebtedness. This will leave the company only \$200,000 of endorsed bonds to finish 48 to 50 miles of railroad. To do so, it will cost us \$280,000.

This will leave us a debt of eighty thousand dollars; to which amount there should be added an amount sufficient to improve our road in the valley of Broad river, to cover our bridges and to make additions to the machinery and rolling stock—requiring in all over \$100,000.

With this amount the road can be completed in six months.

I propose the following plan to raise the amount. Issue \$100,000 of preferred stock, bearing 7 per cent. interest, payable semi-annually, at the office of the company, in cash or freight, and let it be divided out among the friends of the road.

The following gentlemen were elected officers for the ensuing year:

JOHN L. YOUNG, President.

Directors: S. Bobo, T. M. Lyles, W. J. Keenan, F. Scaife, T. N. Dawkins, T. B. Jeter, Govan Mills, S. N. Evins, J. W. Miller, J. H. Carsen, James Gelliam and Wm. Kirkwood.

The following resolutions were adopted:

Resolved, That the Company will raise one hundred thousand dollars of additional stock, in order to complete the road to Spartanburg.

Resolved, That all persons taking said stock shall be paid dividends thereon semi-annually, either in cash or freights, at the rate of 10 per cent. per annum.

Resolved, That the said stock shall all be refunded to the stockholders by the first surplus

made by the Company, after paying interest and expenses.

Resolved, That the new stock be made payable by the first of January next, in cash, labor or materials on the road, as may be agreed on by the officers of the road and the subscribers.

Cincinnati City Debt.

On the 1st of July the City of Cincinnati paid the following sums of semi-annual interest upon its outstanding indebtedness:

	Value.	Interest.
Stock in Miami Railroad	\$80,000	\$2,400
Loan to same road	100,000	3,000
Stock in White Water Canal	400,000	12,000
Loan in same canal	30,000	900
To fund floating debt of the city ..	80,000	2,000
To fund floating debt of the city ..	150,000	4,500
Purchase money of city lot	60,000	1,800
Purchase of wharf property	470,000	14,220
Loan to Cinc. & Marietta R. R.	150,000	4,500
Exchange on above on New York and Philadelphia		334

Totals

\$1,524,000	\$45,654
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The valuation of Hamilton County is \$120,890,791. The city owns property to the extent of \$6,726,000, and its whole debt is \$3,719,000. The annual taxes are \$671,911.

Eaton and Hamilton Railroad.

The following is an abstract of the Report of the President to the stockholders and creditors of the Eaton and Hamilton Railroad Company.

The tables have been compiled with care, from the books of the corporation, and are believed to present a true exhibit of its business operations to the close of 1857; and a proximate one of equal reliability for the first six months of the current year.

Income for the year 1857, and Current Expenses.

Received from freight transportation ..	\$72,902 46
Do. passenger do.	62,640 58
Do. mails do.	2,892 84
Do. express do.	2,500 00

\$140,935 88

Working expenses, rents, etc., paid ... \$90,928 15

Income for the year 1856, and Current Expenses.

From freight transportation	\$97,433 80
" passenger do.	72,399 13
" mail do.	2,499 96
" express do.	2,321 00

\$174,653 89

Working expenses paid

\$80,587 66

Other Expenses.

Taxes for the year 1856	2,646 70
Rent of track at Hamilton of C. H. & D. Railroad.	10,000 00
Rent of equipment from the C. H. & D. Railroad	20,270 88
Interest and discounts on floating debt and R. & M. Bonds, 1 m.	19,247 67

\$132,752 91

Condition of the Floating Debt of the Eaton and Hamilton Railroad.

December 31, 1857.	
Bills payable	\$52,773 54
Domestic loan	37,170 13
Due individuals	4,845 37
Orders	753 26

\$95,542 30

Reduction since last report

\$36,388 42

July 1, 1858.

Bills payable ..	\$30,956 09
Domestic loan ..	36,970 13
Individ'l credits ..	6,552 89
Orders	456 13

74,985 24

Reduction during the last six months ..

\$20,607 06

Aggregate Annual Earnings for Five Years.

	1853.	1854.	1855.
Freight	\$49,209 41	\$61,845 82	\$96,456 04
Passenger ..	35,972 60	64,806 24	75,473 19
	\$85,182 01	\$125,152 06	\$171,929 23
		1856.	1857.
Freight		\$97,433 80	\$72,902 46
Passenger		77,220 09	68,177 34
		\$174,653 89	\$141,079 80

Ledger Balance of the Eaton and Hamilton R. R. Company, July 1, 1858.

	Dr.
Construction	\$1,101,744 69
Equipment	74,422 91
Real estate	185,166 51
Due from railroad companies (suspended)	62,630 70
Profit and loss	188 71
Current expenses	\$42,680 98
" interest	31,097 04
	73,778 02
Individual ledger	3,310 84
Cash on hand and cash items	2,882 71

\$1,504,125 09

Cr.

Capital stock	\$469,762 68
Bonds issued	757,784 00
Domestic loan	36,970 13
Orders	456 13
Bills payable	30,956 09
Individual ledger	5,522 18
Suspended interest	126,308 92
Pay rolls and over-drafts	1,030 71
Income from transportation	75,884 25

\$1,504,125 09

Mexican Railroad.

The Vera Cruz correspondent of the New Orleans Delta gives the following information concerning the progress of the railroad survey from that city to Mexico:

In Mexico I met with Col. Talcott, steam engineer in chief of the survey being effected between this city and the capital, for the purpose of locating a line of railroad for account of Manuel Escandon. I learned from his son that the line had been located as far as Orizaba, and that they found that they could ascend the Cumbus between that city and Puebla, with not more than 20 miles of heavy grading, and with no grades over 200 feet to the mile. The big barranco between Cordova and Orizaba will require a bridge of 1,080 feet in length, and it will be about 350 feet above the running water beneath. This road is a work of great magnitude, but it is the only thing that can save the nation. Manuel Escandon has undertaken it, and he has the energy to carry it through, provided his countrymen will only give him a chance. I was told in Mexico that Col. Talcott's report would be made in September, and that then Escandon would proceed to Europe via the United States, in order to lay his plan before the capitalists of the world. If success attends him, I hope to see the work under way within the coming year. In 18 months it could be finished as far as Orizaba, and in four years it could be carried to Mexico.

Grand Trunk Railway of Canada.

The Directors of the Grand Trunk Railway Company have issued an important circular presenting a new financial plan, with a view to the speedy completion of the Victoria Bridge and to advance the terminus to Detroit. Each shareholder is to have an option to cancel one-fifth of his consolidated stock, and to receive for such canceled stock a like amount of 7 per cent. Debentures, redeemable at par on the 1st October, 1867, upon condition of his subscribing for an equal amount of 7 per cent. Debentures, redeemable at par on the 1st October, 1862. These latter are to be paid for in money at the rate of £80 for each debenture of \$100, by instalment.

Railway Share List,

Compiled from the latest returns—corrected every Wednesday—on a par valuation of \$100.

NAME OF COMPANY.	Length of Road.	Capital paid in.	Debt.	Total cost of road & equip't.	Gross Earnings for last official year.	Net Earnings for do.	Dividend for do.	Price of Shares.	NAME OF COMPANY.	Length of Road.	Capital paid in.	Debt.	Total cost of road & equip't.	Gross Earnings for last official year.	Net Earnings for do.	Dividend for do.	Price of Shares.	
Atlantic & St. Lawrence	149	2,494,900	3,482,000	6,594,829	576,483	83,368	none	---	Brunswick and Florida, Ga.	30	151,887	463,648	638,649	In progr.	---	---	---	---
Androscog. & Kennebec	55	467,909	1,835,305	2,210,947	159,518	---	---	---	South. Western	92	1,399,100	441,292	2,237,323	368,214	208,771	9	---	---
Kennebec & Portland	72	1,107,526	1,763,738	2,871,264	213,255	---	---	---	Tennessee and Alabama	30	309,754	626,889	679,906	53,776	29,408	---	---	---
Portland, Saco, & Portsmouth	51	1,396,400	---	1,869,373	263,717	120,909	6	9 1/2	Tennessee and Missouri	59	707,398	408,384	1,189,662	113,802	87,210	---	---	---
Boston, Concord, & Montreal	93	1,809,032	1,104,586	2,849,977	329,767	174,025	16	---	Memphis and Charleston	237	2,228,177	3,495,288	5,672,470	642,022	234,504	---	---	---
Cheshire	53	2,085,925	899,313	3,170,687	355,929	113,077	45	---	Mobile and Ohio	224	6,784,849	2,066,459	10,701,428	561,382	278,428	---	---	---
Concord	35	1,500,000	8,242	1,412,576	317,050	126,664	4	45 1/2	Miss. Central	100	1,575,474	926,796	2,603,098	115,671	---	---	---	---
Northern, N. H.	82	3,068,400	406,286	3,068,400	365,850	158,998	4	---	Southern (Miss.)	82	1,000,000	1,400,000	2,400,000	264,255	150,789	---	---	---
Concord & Passumps. Riv.	90	1,000,000	800,000	1,784,146	177,588	73,401	none	---	N. O., Opelousas & G. W.	80	2,800,000	750,000	3,577,526	284,178	127,450	---	---	---
Grand & Burlington	117	2,233,376	4,168,369	4,575,399	384,125	77,201	none	---	N. O., Jackson & N.	130	4,035,000	1,815,610	3,500,000	189,008	---	---	---	---
Vt. Central & Vt. & Canada	125	6,350,000	5,283,299	9,752,055	803,328	180,570	none	---	Vicksburg, Shreveport & Tex.	20	851,293	4,447	831,521	In progr.	---	---	---	---
Boston and Lowell	22	1,350,000	438,920	2,412,251	335,825	171,332	6	80	East Tennessee and Ga.	111	1,192,974	1,739,669	2,703,428	227,363	104,992	---	---	---
Boston and Maine	74	4,076,974	50,000	4,226,974	770,802	305,502	13	---	East Tennessee and Va.	43	626,076	1,728,664	3,208,136	61,314	39,082	---	---	---
Boston and N. Y. Central	74	2,240,300	1,673,589	3,692,144	534,176	245,194	6	13	Nash. and Chattanooga	159	2,263,905	1,632,793	3,896,703	641,552	219,26	---	---	---
Boston and Providence	43	3,160,000	239,720	3,584,458	387,995	166,162	none	---	Owington & Lexington	68	1,384,850	3,065,917	4,091,604	426,408	220,906	---	---	---
Boston and Worcester	44	4,500,000	599,974	4,843,779	1,019,149	388,518	6	87 1/2	Lexington and Frankfort	29	430,056	159,899	668,255	95,807	45,717	6	---	---
Cape Cod	47	681,690	291,007	1,081,626	122,960	39,899	49 1/2	---	Lexington and Danville	13	694,444	71,000	765,500	In progr.	---	---	---	---
Connecticut River	50	1,691,110	275,772	1,801,244	267,710	65,096	3	44	Louisville and Frankfort	65	741,089	623,216	1,502,095	215,750	109,059	6	---	---
Eastern, Mass.	60	2,683,400	2,441,373	5,082,607	616,156	272,479	47	---	Atlantic & Gt. Western	254	866,939	77,094	618,231	In progr.	---	---	---	---
Fitchburg	67	3,540,000	100,000	3,872,831	668,974	250,843	6	84 1/2	Bellevue and Ind.	118	1,874,895	1,315,237	2,998,392	348,552	120,536	none	---	---
N. Bedford and Taunton	21	600,000	none	541,590	168,925	27,827	6	92 1/2	Clev., Col. and Cin.	141	4,746,200	90,400	4,936,320	1,497,741	511,740	9	91	---
Old Colony and Fall River	77	3,015,100	200,100	3,382,949	688,357	305,140	6	---	Cleveland and Toledo	200	3,333,712	4,225,538	7,559,107	930,232	433,790	34 1/2	---	---
Vermont and Mass.	69	2,232,541	1,019,148	3,241,975	240,133	52,267	none	---	Clev. and Mahoning	65	---	---	628,533	In progr.	---	---	---	---
Western, Mass.	156	6,150,000	5,839,090	10,495,906	2,117,982	889,763	8	105	Clev. and Pittsburg	133	2,780,744	3,043,992	5,587,466	681,877	309,618	5	---	---
Worcester and Nashua	46	1,141,000	205,565	1,351,271	216,888	82,720	4	44	Clev., P. & Ashtabula	95	3,000,000	1,495,548	3,955,230	1,251,538	581,454	15	---	---
Providence and Worcester	43	1,510,000	300,000	1,781,048	344,773	155,044	7	82	Cin., Hamilton & Dayton	60	2,155,800	1,526,092	3,130,315	487,421	230,763	45	---	---
Hartford and N. Haven	72	2,550,000	944,000	3,242,131	780,005	372,807	10	119 1/2	Cin., Wilm. & Zanesville	131	2,421,176	3,782,040	6,996,210	232,506	30,288	---	---	---
Hartford, Prov. and Fishkill	122	1,941,340	2,375,274	4,202,516	387,895	166,162	none	---	Columbus and Xenia	55	1,490,450	149,000	1,582,476	403,212	181,688	10	---	---
Housatonic	74	2,000,000	423,885	2,423,885	318,475	109,344	none	---	Dayton, Xen. & Belpre	63	437,838	422,658	860,496	In progr.	---	---	---	---
Kataugus	67	1,831,800	624,244	1,580,723	237,416	114,237	---	---	Dayton and Michigan	140	1,076,602	393,011	1,185,826	In progr.	---	---	---	---
N. York and N. Haven	62	3,000,000	2,882,071	5,519,559	854,995	254,569	3	---	Dayton and Western	35	310,000	700,481	1,035,173	125,940	65,253	---	---	---
N. Haven and N. London	50	738,258	761,462	1,450,318	88,007	30,318	none	---	Eaton and Hamilton	42	454,890	904,489	1,556,135	171,929	65,000	---	---	---
N. London, W. & Palmer	66	510,500	1,052,000	1,603,230	120,571	51,444	none	---	Little Miami	65	2,981,292	1,266,000	3,925,157	77,442	290,123	10	75	---
Norwich and Worcester	66	2,122,300	724,183	2,598,671	265,417	44,447	---	---	Sandusky, Dayton & Cin.	171	2,697,000	3,368,000	6,065,000	682,614	---	---	---	---
Albany Northern	32	439,005	1,625,098	1,840,695	117,716	9,904	---	---	Central Ohio	138	1,628,856	5,191,877	6,421,908	712,213	134,371	none	---	---
Black River and Utica	35	643,330	817,359	974,323	In progr.	---	---	---	Pittsb. Mt. Wayne & Chicago	383	5,994,144	7,944,827	11,718,511	1,111,626	662,117	9	20	---
Buffalo, Gen. and N. Y.	100	1,487,374	1,501,183	2,819,096	172,476	66,338	none	---	Pittsb. Mt. Wayne & Cin.	50	371,350	81,000	909,933	In progr.	---	---	---	---
Buffalo and N. Y. City	92	738,439	2,537,849	3,401,868	288,392	81,896	none	---	Sandys, Manass. & Newk.	127	1,350,000	2,206,357	3,552,357	328,958	164,479	none	---	---
Buffalo and St. Line	69	1,300,000	1,040,000	2,494,384	679,750	355,763	10	---	Scioto & Hocking Valley	56	403,976	609,050	888,858	In progr.	---	---	---	---
Canandaigua and Elmira	47	434,111	922,393	1,275,796	174,089	69,506	---	---	Spr. Wabash & St. Louis	113	1,000,000	950,000	---	In progr.	---	---	---	---
Canandaigua & Niagara F.	98	1,315,000	2,279,854	3,495,832	---	---	---	---	Tr. Wabash & St. Louis	242	2,965,100	7,577,600	10,542,600	Recently opened.	---	---	---	---
Cayuga & Susquehanna	35	697,000	506,689	1,187,562	135,433	48,649	none	---	Cin., Log. and Chicago	255	4,196,079	1,006,126	2,080,433	---	---	---	---	---
Hudson River	144	3,768,486	9,250,362	12,737,898	1,302,812	688,590	28 1/2	---	Evansville & Crawfordsv.	109	988,061	1,270,872	2,158,713	249,869	124,140	---	---	---
Long Island	556	24,186,691	14,607,510	30,615,515	3,027,251	3,573,738	7 1/2	---	Ind. and Cincinnati	88	1,696,890	1,564,584	3,029,989	491,743	245,622	7	---	---
New York Central	464	11,000,000	23,091,463	34,469,324	742,601	1,454,032	none	13 1/2	Indiana Central	66	612,350	1,231,179	1,909,911	83,189	204,685	---	---	---
New York and Erie	133	5,717,100	4,822,498	8,758,208	1,040,393	324,891	none	10 1/2	Ind., Clev. & Pittsburg	83	835,791	1,074,694	1,826,425	233,19	85,248	---	---	---
New York and Harlem	118	1,633,022	4,406,874	5,470,714	502,153	135,764	none	1	Jeffersonville	66	1,014,252	694,000	1,839,676	222,757	94,318	---	---	---
Northern, N. Y.	35	303,130	213,025	752,030	149,373	78,764	8	---	Madison and Indianapolis	87	1,647,700	1,336,816	1,205,000	260,214	118,628	none	---	---
Oswego and Syracuse	29	467,200	294,189	749,683	In progr.	---	---	---	New Albany and Salem	288	2,535,121	5,281,948	6,643,189	646,827	371,402	none	---	---
Pottsdam and Watertown	26	610,000	140,000	596,423	241,149	82,600	7	---	Peru and Indianapolis	73	---	858,314	---	150,000	---	---	---	---
Rensselaer & Saratoga	48	500,000	396,000	719,009	71,909	21,089	none	---	Terre Haute and Ind.	73	1,361,450	250,135	1,588,909	481,272	206,079	10	---	---
Saratoga and Whitehall	80	768,399	1,578,804	2,272,777	159,454	22,503	none	---	Chicago and Rock Is.	182	2,848,000	1,734,318	6,628,272	1,886,196	850,059	72 1/2	---	---
Syracuse & Binghamton	27	487,330	737,079	1,109,822	156,363	55,164	---	---	Chicago, Burl. and Quincy	210	4,331,540	3,852,970	8,042,428	1,505,167	81,767	54	---	---
Troy and Boston	97	1,500,000	700,979	2,200,500	440,390	162,037	3 1/2	---	Chic., St. Paul & P'd du Lac	178	2,300,000	1,325,000	3,625,000	In progr.	---	---	---	---
Watertown and Rome	64	1,000,000	1,619,000	2,619,000	243,390	114,632	none	63	Galena and Chicago	259	6,023,800	3,899,015	9,395,455	2,315,766	1,192,042	8 1/2	---	---
Beaumont Delaware	94	8,000,000	11,407,200	8,794,096	1,640,787	694,114	12	101	Illinois Central	704	6,556,435	20,817,922	53,437,669	2,993,966	565,972	76 1/2	---	---
Camden and Amboy	30	483,000	1,550,854	1,738,171	117,889	46,542	none	---	Peoria and Okawka	181	1,569,889	2,200,000	4,400,000	In progr.	---	---	---	---
Camden and Atlantic	30	485,000	788,844	3,660,017	911,617	534,951	10	25	Ohio & Miss. (West. Div.)	147	1,780,295	3,292,403	4,870,586	Recently opened.	---	---	---	---
New Jersey	83	2,000,000	3,692,828	5,621,829	682,940	357,193	---	---	Terre Haute, Alt. & St. Louis	208	3,011,150	9,925,927	8,726,764	823,767	247,767	---	---	---
New Jersey Central	83	1,187,805	340,000	1,684,127	327,765	101,542	3 1/2	---	Detroit and Milwaukee	185	838,000	1,128,964	1,966,969	In progr.	---	---	---	---
Morris and Essex	44	1,637,867	342,564	1,988,317	Recently opened.	---	---	---	Mich. Central	282	6,057,840	3,866,639	12,847,238	2,243,758	704,936	8	58 1/2	---
Allegheny Valley	63	1,700,000	1,940,000	3,640,000	219,253	62,450	---	---	Mich. South'n & N. Ind.	475	8,874,000	10,459,63	19,336,042	2,309,487	444,311	24 1/2	---	---
Ontario, W. & Erie	62	1,149,400	61,103															

Railroad Bonds.

NAMES OF COMPANIES. (The following quotations are at interest.)	Amount of Loan.	Description of Bonds.	Rate Int.	Interest payable.	Where payable.	Due.	Offered.	Asked.
Alabama and Tennessee River	\$838,000	1st mortgage, convertible	7	1st Jan. 1st July	N. Y.	1872	85	
Buffalo and State Line	500,000	Do. inconvertible	7	April, October	"	1866	90	95
Bellefontaine and Indiana	600,000	Do. convertible	7	Jan'y, July	"	1866	85	
Do. do.	200,000	Real estate, convertible	7	Jan'y, July	"	1866		
Do. do.	200,000	Income, guar. Cl. Col. & Cin.	7	Feb'y, August	"	1869		
Central Ohio	1,250,000	1st mort. conv. east. sec.	7	Divers	"	1861-64	63	75
Do. do.	800,000	2d do. inconvertible	7	March, Sept.	"	1865	50	55
Cincinnati, Hamilton, and Dayton	500,000	1st mortgage inconvertible	7	20 Jan. 20 July	"	1867	60	65
Do. do.	465,000	2d do. do.	7	May, Novemb.	"	1880	75	
Cincinnati and Marietta	2,500,000	1st mortgage, conv. till 1882	7	Jan'y, July	"	1868		
Cincinnati, Wilmington, and Zanesville	1,300,000	Do. convertible	7	May, Novemb.	"	1862	90	95
Cleveland, Painesville, and Ashtabula	567,000	Do. inconvertible	7	Feb'y, August	"	1861	90	95
Cleveland and Pittsburgh	800,000	Do. convertible	7	Feb'y, August	"	1860	60	70
Do. do.	1,200,000	Do. on Branches	7	March, Sept.	"	1873	55	
Cleveland and Toledo	525,000	Do. inconvertible	7	Feb'y, August	"	1863	75	80
Chicago and Mississippi	800,000	Do. conv. till 1857	7	April, October	"	1862-72	60	
Do. do.	1,200,000	Do. inconvertible	7	April, October	"	1862-72	60	
Covington and Lexington	400,000	Do. do.	7	April, October	"	1867	62 1/2	65
Do. do.	1,000,000	2d mortgage, convertible	7	March, Sept.	"	1863	75	80
Delaware, Lackawanna, and Western	1,500,000	1st mortgage, do.	7	April, October	"	1875	75	80
Florida Freehold	1,500,000	Do. not convertible	7	March, Sept.	"	1891		
Fort Wayne and Chicago	1,250,000	Do. conv. till 1883	7	Jan'y, July	"	1873	72 1/2	
Gaiana and Chicago	2,000,000	Do. inconvertible	7	Feb'y, August	"	1863	95 1/2	97 1/2
Do. do.	2,000,000	2d mortgage, do.	7	May, Novemb.	"	1875	91	91 1/2
Great Western (Illinois)	1,000,000	1st mortgage, do.	10	April, October	"	1868	87 1/2	93
Green Bay, Milwaukee, and Chicago	400,000	Do. convertible	8	10 April, 10 Oct.	"	1863		
Jeffersonville	300,000	Do. 2d sec. inconv.	7	April, October	"	1873		
Indiana Central	600,000	Do. convertible	7	May, Novemb.	"	1860	85	
Indianapolis and Bellefontaine	450,000	Do. do.	7	Jan'y, July	"	1860-61	70	82 1/2
Indianap. & Cin'ti (for Lawb. & U. M.)	500,000	Do. conv. till 1857	7	March, Sept.	"	1866		
La Crosse and Milwaukee	950,000	1st mort. 1st sec. conv. till 1864	7	May, Novemb.	"	1874		
Lake Erie, Wabash, and St. Louis	3,400,000	1st mortgage, conv. till 1859	7	Feb'y, August	"	1865	66 1/2	67
Little Miami	1,500,000	Do. inconvert.	6 1/2	May, 2 Nov.	"	1863	80	81
Michigan Central	1,000,000	No mortgage, convertible	8	April, October	Boat.	1860	96	97
Do. do.	800,000	Do. do.	8	March, Sept.	"	1869	93	95
Milwaukee and Mississippi	600,000	1st mort. 1st sec. conv. till 1857	8	Jan'y, July	N. Y.	1862		
Do. do.	650,000	Do. 2d do. 1868	8	April, October	"	1863		
Do. do.	1,250,000	Do. 3d do. 1860	8	June, Decemb.	"	1864-75	75	78
New Albany and Salem	2,325,000	Do. 1st section	10	April, October	"	1858-62		
Do. do.	1,000,000	Do. oth. sec. con. till 1858	8	May, Novemb.	"	1864-75		
Northern Cross	1,200,000	1st mortgage, convertible	8	Jan'y, July	"	1873		
Ohio and Indiana	1,000,000	Do. do.	7	Feb'y, August	"	1867	85	
Ohio and Pennsylvania	1,750,000	Do. do.	7	Jan'y, July	"	1865-68	70	
Do. do.	2,000,000	Income, convertible	7	April, October	"	1872	60	
Pennsylvania (Central)	5,000,000	1st mortgage, conv. till 1882	6	Jan'y, July	Phila.	1860	98 1/2	99 1/2
Racine and Mississippi	680,000	Do. conv. sink'g f'd	8	Feb'y, August	N. Y.	1875		
Racine and Hocking Valley	300,000	Do. 1st sec. conv.	7	May, Novemb.	"	1861		
Steubenville and Indiana	1,500,000	Do. convertible	7	Jan'y, July	"	1865		
Terre Haute and Indianapolis	600,000	Do. do.	7	March, Sept.	"	1866		
Terre Haute and Alton	1,000,000	Do. do.	7	Feb'y, August	"	1862-77 1/2	64	68

Cincinnati Stock Sales.

By HEWSON & HOLMES.

For the week ending September 1, 1858.

BONDS.	For the week ending September 1, 1858.
\$17,000 Ohio and Mississippi, 7 per ct. 2d Mort. Constr.	30
6,000 Little Miami, 6 per ct. 1st Mort.	23
5,000 Cov. & Lex., 7 per ct. 2d Mort.	45
10,000 Cov. & Lex., 7 per ct. 3d Mort.	30
3,000 Cin. & Ham. & Dayt., 7 per ct. 2d Mort.	75
5,000 Indiana Central, 10 per ct. 2d Mort.	77
2,000 Columbus, Piqua & Indiana, guaranteed by Clev. Col. and Cin.	60
1,000 Indianap. & Cin., 2nd Mort. 7 per ct.	75
1,500 Columbus & Xenia, 7 per cent. Dividend, due in 1860.	92 1/2

STOCKS.

STOCKS.	For the week ending September 1, 1858.
112 Shares Little Miami	77 to 78
50 " Columbus and Xenia	75 to 76
100 " Indianapolis & Cincinnati	36 1/2

By KIRK & CHEEVER.

For the week ending September 1, 1858.

BONDS.	For the week ending September 1, 1858.
Little Miami, 1st Mort.	68 1/2
Covington and Lexington, 1st Mortgage	68 1/2
Do. do. 2d do.	72 1/2
Do. do. 3d do.	72 1/2
Ohio & Miss., E. D., Construction	78 1/2
Cinc. & Ham. & Dayton, 1st Mortgage	78 1/2
Do. do. 2d do.	78 1/2
Indianap. & Cincinnati, do. do.	78 1/2

STOCKS.

STOCKS.	For the week ending September 1, 1858.
Cincinnati, Hamilton & Dayton	47
Columbus and Xenia	75
Dayton & Western	15
Indianapolis & Cincinnati	15
Little Miami	40
Ohio and Mississippi (E. D.)	77

Dubuque and Pacific Railroad.

At a meeting of the creditors and bondholders of the Dubuque and Pacific Railroad Company, represented by bonds and claims to the amount of one million and seventy-five thousand dollars, held by previous notice at No. 44 Exchange Place, New York, September 2, 1858, Abraham S. Hewitt was chosen Chairman, and J. O. Heyworth was appointed Secretary. After free discussion, it was

Resolved, That in view of the embarrassed condition of the finances of the Dubuque and Pacific Railroad Company, its inability to pay the interest on its bonds or liquidate its floating debt, we, the bondholders and creditors of said road, represented at this meeting, having considered the plea set forth in the circular recently issued by the Board of Directors, sanctioned by the Trustees of said road, and submitted to all parties interested, do, after mature deliberation, recommend its unanimous adoption upon the condition that the Board of Directors of said Company pass a resolution that should all the creditors and bondholders accept the proposition submitted by said Board of Directors, that the stock issued in exchange for the mortgage bonds and floating debt be a preferred stock, bearing 7 per cent. interest per annum, secured upon the net earnings of the road from Dubuque to Manchester.

Resolved, That upon the condition in the first resolution being complied with by the Board of Directors of said Company, we earnestly urge upon all the creditors and bondholders not represented at this meeting the acceptance of the proposition.

ABRAHAM S. HEWITT, Chairman.

J. O. HEYWORTH, Secretary.

Admiralty Survey of the St. Lawrence.

We learn that H. M. (hired) surveying schooner Gulnare, Commander Orlebar, R.N., arrived in our port yesterday, in tow of the steamer Napoleon III., and is now at anchor at the foot of the Rapids. We understand that Commander Orlebar and the officers under his command will at once commence a revision of the plan of this harbor, and insert all the alterations made since the survey of Captain (now Admiral) Bayfield in 1834. The surveying party now in our harbor, consists of Commander Orlebar, Dr. Stratton and Messrs. Clifton and De Brisay, E.N., assistant surveyors. It will be remembered that Admiral Bayfield paid Montreal a visit in the Gulnare 12 years ago, to complete some chronometric measurements. After a service of unprecedented length and unexampled usefulness and merit as a surveyor, that officer within the last two years has been advanced to the rank of Admi-

NAMES OF COMPANIES. (The following quotations include the accrued interest.)	Amount of Loan.	Description of Bonds.	Rate Int.	Interest payable.	Where payable.	Due.	Offered.	Asked.
Baltimore and Ohio	1,128,500	Mortgage	6	Jan'y, July	Balt.	1875	84	85 1/2
Chicago and Rock Island	2,000,000	1st mortgage, conv. till 1859	7	10 Jan. 10 July	N. Y.	1870	95	96
Erie Railroad	3,000,000	1st mortgage	7	May, Novemb.	"	1867	98	100
Do. do.	4,000,000	2d mortgage, convertible	7	March, Sept.	"	1869	89 1/2	90
Do. do.	6,000,000	3d mortgage	7	March, Sept.	"	1863	75	76 1/2
Do. do.	6,000,000	4th mortgage, not convertible	7	April, October	"	1860	56	58
Do. do.	4,000,000	Not conv. Sink Fund, \$420,000	7	Feb'y, August	"	1875	32	33
Do. do.	4,351,000	Convertible, Inscription	7	Feb'y, August	"	1871	30	31
Do. do.	3,500,000	Convertible	7	Jan'y, July	"	1862	30 1/2	32
Hudson River	4,000,000	1st mortgage, Inscription	7	Feb'y, August	"	1869-70	101	102
Do. do.	2,000,000	2d do. do.	7	16 June, 16 Dec.	"	1860	88 1/2	89 1/2
Do. do.	3,000,000	3d do. convertible	7	May, Novemb.	"	1870	69	70
Illinois Central	17,000,000	Mortgage, inconvertible	7	April, October	"	1875	90 1/2	91 1/2
Do. (Free Land)	3,000,000	Mfge 345,000 acres-priv. 7 shares	7	March, Sept.	"	1860	87	89
Michigan Southern	1,000,000	1st mortgage, inconvertible	7	May, Novemb.	"	1860	85	90
New York and Harlem	1,800,000	Do. do.	7	May, Novemb.	"	1861-72	84	85 1/2
New York and New Haven	750,000	No mortgage, do.	7	June, Decemb.	"	1855-60	92 1/2	
New Haven and Hartford	1,000,000	1st mortgage, do.	7	Jan'y, July	"	1873	90	94
Northern Indiana	1,000,000	Do. do.	6	Jan'y, July	"	1861	84	90
Do. do.	1,500,000	Do. do.	7	Feb'y, August	"	1868	67	66
New York Central	3,287,000	No mortgage, do.	6	May, Novemb.	"	1863	95	98
Do. do.	3,000,000	No m'ge conv. from June 87-59	7	15 June, 15 Dec.	"	1864	100	101
Panama, 1st issue	900,000	Convertible till 1856	7	Jan'y, July	"	1866	113	
Do. 2d do.	1,478,000	Do. till 1868	7	Jan'y, July	"	1866	90	91
Reading	1,573,000	Mortgage, inconvertible	6	Jan'y, July	Phila.	1860		
Do. do.	1,300,000	Do. convertible	6	Jan'y, July	"	1870	76	
Do. do.	3,469,000	Do. inconvertible	6	April, October	"	1866	66 1/2	68

CITY SECURITIES.	Int't payable.	Off'd	Asked.	CITY SECURITIES.	Int't payable.	Off'd	Asked.
New York, 5 per ct. 1858-76	{	97	97 1/2	Milwaukee, 7 per ct. coup. X	Divers	.....	70
Do. 5 do. 1870-75		96	98	New Orleans, 6 per ct. cp. R.R. X	Do.	.....	73
Do. 6 do. 1883		102 1/2	102 1/2	N. Orleans, 6 per ct. cp. municip. X	Jan'y, July	.....	80
Do. 5 do. 1890-93		91	93	Philadelphia, 6 per ct. 1876-98	Jan'y, July	.....	67 1/2
Albany, 6 per ct. coup. 1871-81 X	Feb'y, August.	98	100	Pittsburgh, 6 per ct. coup. X	Divers	.....	65
Allegany, 6 per ct. coup. X	Jan'y, July	.....	70	Quincy, 8 per ct. coup. 1868 X	Jan'y, July	.....	60
Baltimore, 6 per ct. 1879-90	Quarterly	97 1/2	99	Racine, 7 per ct. coup. 1873 X	10 Feb'y, Aug	.....	80
Boston, 5 per ct. coup. X	April October.	100		Rochester, 6 per cent. coup. X	Divers	.....	90
Brooklyn, 6 per ct. coup. Long X	Jan'y, July	97	98	St. Louis, 6 per ct. coup. Long X	Do.	.....	80
Cleveland, 7 per ct. cp. W. W. 1879 X	Do. do.	100	101	Do. do. Municipal X	Do.	.....	84
Cincinnati, 6 per ct. coup. X	Divers	80	90	Sacramento, 10 p. ct. cp. 1862-74 X	Do.	.....	40
Chicago, 6 per ct. coup. 1873-77 X	Jan'y, July	85	86	S. Francisco, 7 p. ct. cp. 1865, pay N. Y. X	May, Novemb.	.....	60
Do. 7 per ct. coup. 1880 X	Jan'y, July	98	100	Do. 10 p. ct. cp. 1871 X	Do. do.	.....	90
Detroit, 7 per ct. cp. W. W. 1873-78 X	Feb'y, August.	100	102	Do. 10 do. pay N. Y. X	Jan'y, July	.....
Dubuque, 8 per ct. cp. Long X	March, Sept.	.....	100	Do. 6 per ct. pay N. Y. 1875 X	Do. do.	.....	59
Jersey City, 6 p. ct. cp. W. W. 1877 X	Jan'y, July	99		Wheeling, 6 per ct. coup. X	Divers	.....	80
Louisville, 6 per ct. cp. 1880-83 X	Divers	67 1/2	69	Do. 6 p. ct. cp. Mun. 1874 X	March, Sept.	.....	81 1/2
Memphis, 6 per ct. coup. 1882 X	Jan'y, July	64	66	Zanesville, 7 do. X	April, October	.....

ral, and on his earnest recommendation Commander Orlebar, his senior assistant for more than 20 years, has been appointed to succeed him. During the early part of this season the Gubare has been employed on the southeast coast of Cape Breton, surveying Louisburg Harbor, and the coast adjacent.—*Montreal Herald*, Aug. 27.

We have received from Messrs. WILEY & HALSTED, of 351 Broadway, the July numbers of the *Builder*—an illustrated weekly journal, issued in London, and furnished by them for \$6 per year. It is a most valuable periodical, chiefly devoted to the useful sciences of engineering and architecture, and also treating of a great variety of topics, in a highly interesting manner. The numbers for each month are bound together, and make a handsome and well-filled volume of information serviceable to every architect and builder. Messrs. W. & H. are also agents for the *Practical Mechanics' Journal*.

Baltimore and Potomac Railroad.

On 2nd inst. the Commissioners appointed under the Maryland act incorporating the Baltimore and Potomac Railroad Company met at Upper Marlboro'. The chair was taken by John S. Sellman, Esq., of Anne Arundel County, and John W. Jenkins, Esq., of Charles County, acted as Secretary. The other commissioners present were Edward J. Plowden, of St. Mary's; Francis Thompson, of Charles; Walter W. W. Bowie, Wm. K. Barker, Thos. F. Bowie, Wm. Pinkney Brooke, and Charles C. Hill, Esq., all of Prince George's County. After arranging the terms on which the traveling agent (Robert Bowie, Esq.) should be remunerated for procuring the preliminary subscription of \$50,000, necessary to the formation and existence of the "Company," the meeting was addressed by Edwin Robinson, Esq., President of the Richmond and Fredericksburg road, in a speech which appears to have been highly acceptable to all present. Mr. R. declared himself warmly in favor of the proposed railroad, and stated that, in his judgment, it could be built for the minimum cost of railroad construction. He described it as likely to do an immense business in the transportation of produce, now compelled to pass a difficult and perilous ocean route. In point of paying qualities he asserted that this road, of less than seventy miles in length, was the most promising he knew of, and that he was persuaded that English capitalists, if they could have the opportunity, would leap to pay a million of dollars for the privilege of building and working it. He also made the important declaration of his opinion that his company could become responsible for such an amount of capital stock as would complete the road from Upper Marlboro' to its terminus on the Potomac, opposite Aquia creek. Mr. Robinson was followed by Col. Sellman, Col. Walter W. W. Bowie, and Daniel Clarke, Esq., all of whom expatiated on the advantages that would accrue to the section of country through which the road would pass, and redeem that part of Maryland from much unmerited detraction. We derive the foregoing from the *Upper Marlboro' Planter's Advocate*.

Albany and Susquehanna Railroad.

At a recent meeting of the Board of Directors, the following resolution was adopted:

Resolved, That the road be put under contract from East Worcester to Oneonta, to be completed at the same time now contemplated from East Worcester; and that the President be requested to proceed at once to execute contracts for the construction of the road from Albany to East Worcester, with such restrictions and conditions as the Executive Committee shall deem prudent and necessary with reference to the means of the Company; and that such progress be made at the tunnel section as may secure an early completion of the road, and that the chief engineer be directed to prepare such section for contract at as early a day as practicable.

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American Railroad Journal.

Saturday, September 11, 1858.

Railroad Earnings.

The receipts and expenses of the Michigan Southern and Northern Indiana railroad, for the month of August, and for same month last year, as per Auditor's statement (partly estimated), are:

Total receipts in 1857	\$181,806 55
Do. 1858	202,401 73

Increase in earnings	\$21,095 18
Vouchers issued in August, 1857	\$158,052 34
Do. do. 1858	85,509 57

Decrease in expenses	\$72,542 77
Add increase in receipts as above	21,095 18

Making a gain in net earnings over August, 1857	\$93,637 95
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The receipts of the Little Miami railroad, for August, were \$113,538 against about \$96,000 for the corresponding month last year.

The receipts of the Illinois Central Railroad, for August, were:—

First week	\$81,144 37
Second week	88,970 13
Third week	61,268 59
Fourth week	65,116 91

Total for the month	\$196,500 00
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The earnings of the Chicago, Burlington and Quincy Railroad Company, for August, were:—

Freight	\$75,028 74
Passengers	28,045 24
Mail and Miscellaneous	1,513 07

Operating expenses	\$104,587 05
Net earnings	60,000 00

Net earnings	\$44,587 05
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The official statement of the earnings of the

Galena and Chicago Union Railroad Company for the month of August is as follows:

	1857.	1858.	Decrease.
Freight	\$109,402 93	\$66,341 99	\$43,060 94
Passengers	57,542 60	44,432 44	13,110 16
Mails, etc.	5,519 52	4,500 00	1,019 52

Total	\$172,465 05	\$115,274 43	\$57,190 62
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Corrected earnings for July, \$157,285 38.

The official report of the receipts of the Toledo, Wabash and Western railroad for August, is as follows:—

Passengers	\$18,625 42
Freight	90,399 79
Mail, etc.	3,316 66

Total	\$112,341 87
July	75,866 48

Increase this month

The earnings of the New York and New Haven Railroad for August, 1858, were \$72,720 52, against \$96,984 54 in August of last year.

Taw's Lubricating Grease.

We invite attention to the advertisement of Messrs. TAW & BEERS, of No. 18 South Water St., Philadelphia, manufacturers of this celebrated grease for railroad cars and heavy machinery. It has been in use upwards of ten years. Many of the roads now supplied by them have used it regularly for that time, at an estimated saving of from 25 to 50 per cent. There are at the present time upwards of forty railroad companies using it exclusively for their cars, beside a number of coal operators, miners, machinists, etc. The price paid for greasing oils used on car journals, is from 75 to 80 cents per gallon, and sometimes higher. This grease can be purchased at 5 cents per pound—or 40 cents per gallon—the grease running about 8 lbs. to the gallon. The consistency of this grease remains the same both in winter and summer; it will neither freeze nor melt; never gums or heats—always keeping the journals cool and clean. The manufacturers are prepared to substantiate everything set forth in their advertisement by certificates from gentlemen of undoubted judgment at the head of some of the best managed railroads in the country. They are also dealers in sperm, whale and elephant oils, adamantine car and other candles. Address Messrs. TAW & BEERS, No. 18 South Water Street, Philadelphia, Penn.

Accidents on American Railroads.

The lack of any systematic means of ascertaining the number and cause of accidents upon our railroads, aside from the increased recklessness which it fosters, renders it almost impossible to state definitely the amount and nature of these accidents. We occasionally see what purport to be statements of such accidents, but they are wholly unreliable. Since the early part of June, we have kept a list of such accidents as we have found recorded in our exchanges, and the result is much worse than we anticipated. In these three months, we have accounts of accidents resulting in the death of 64 persons, and the injury of 146 more. Of these, 14 of those killed were passengers, and the great majority of others were persons improperly walking on the track. Four passengers were killed by getting on or off the cars while in motion.

The following table will show in detail the date and character of the accidents, the roads on which they occurred, etc., etc.

Name of Road.	No. Killed.	FROM CAUSES BEYOND THEIR CONTROL.	No. Injured.	Date of Accident.	No. Killed.	FROM THEIR OWN MISCONDUCT.	No. Injured.	TOTAL.
New York & Erie.....	1	Road washed away.	1	June 12.	1	Jumped from cars in motion.	4	5
Bransford & Crawford.....	1	Ran off track.	1	July 7.	1	Fell from cars drunk.	1	2
New York & Erie.....	6	Breaking of rail.	42	July 16.	1	Jumped from cars in motion.	6	48
Long Island.....	1	Collision.	1	July 26.	1	Fell from cars drunk.	1	2
Second Avenue.....	1	Ran against a cow.	1	July 28.	1	Fell from cars drunk.	1	2
N. Orleans & Jackson.....	1	Culvert broke down.	1	July 31.	1	Fell from cars drunk.	1	2
East Tenn. & Virginia.....	1	Thrown off by cows.	14	July 31.	1	Fell from cars drunk.	1	15
Laf. & Ind.	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Honolulu.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Baltimore and Ohio.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Chic. & Wilm. & Zanesv.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Old Colony.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Ohio, Alton & St. Louis.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
New York Central.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Allegheny Valley.....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Northern (N. Y.).....	1	Bridge broke down.	1	Aug. 10.	1	Fell from cars drunk.	1	2
Cars thrown off track.....	22		22		22		22	44
Collision with freight tr. N. Y. Central.	5		5		5		5	10

Name of Road.	Cause.	Date of Accident.	No. Killed.	No. Injured.
Erie.....	Road washed away.	June 12.	1	4
Black R'r. Fell from car.....		July 31.	1	1
N. O. & J. Collision.....		July 16.	1	1
E.T. & V. Ran against cow.....		July 20.	1	1
Vt. Centr. Leaped from engine.....		July 17.	1	1
Lehigh V. Bridge broke.....		July 21.	1	1
Belv. Del. Collision.....		July 6.	1	1
Laf. & Ind. Culvert gave way.....		June 9.	1	1
O. & Miss. Boiler burst.....		about June 12.	1	1
Old Col'y. R'nov'rat'l cross'g.....		Aug. 7.	1	1
W'msp't & Elmira.....			1	1
C.W. & Z. Bridge broke down.....		July 31.	1	1
Ill. Centr. Fell of the car.....		Aug. 1.	1	1
Wst. Mass. Run over in tunnel.....		Aug. 18.	1	1
Conn. R'r. Drove across track.....		Aug. 17.	1	1
Charles R. Walking on track.....		Aug. 21.	1	1
Balt. & O. L'd down on tr. dr'nk.....		Aug. 22.	1	1
Rock Isl. Ran off track.....		Aug. 12.	1	1

O. & Miss. Do.....	Aug. 14.	2	7
K'y Cent. Knocked off top of car by bridge.....	Aug. 11.	1	1
East Mass. Fell off hand car.....	Aug. 24.	1	1
La Crosse. Unknown.....	Aug. 21.	1	1
N'n Centr. Axle broke.....	Aug. 24.	1	1
Penn'a. Run over on track.....	Aug. 8.	1	1
Bost. & L. Run over.....	Aug. 15.	1	1
Bost. & M. Walking on track.....	Aug. 12.	1	1
A. & St. L. Fell from hand car.....	Aug. 8.	1	1
Milw. & M. Drove across track.....	Aug. 26.	1	1
R. & Danv. Stuck his head out of car.....	Aug. 25.	1	1
Bost. & L. Walking on track.....	Aug. 31.	1	1
Cl'v. & Erie. Thrown off track.....	Aug. 27.	1	12
Ch. & R.I. Crossing track front of train.....	Aug. 27.	2	2
Sulliv. N.H. Walking on track.....	Aug. 28.	1	1
Cape Cod. Do.....	Aug. 30.	1	1
Hudson R. On the track.....	Sept. 2.	2	2
Hud. & B. Do.....	Sept. 2.	2	2
North N.Y. Do.....	Sept. 3.	1	1
Hudson R. Collision, two freight trains.....	Sept. 7.	3	1
Long Isl'd. Caught betw'n cars.....	Sept. 6.	1	1

At this rate, the whole number of persons killed on the railroads of the United States during the year, will amount to 216; number injured, 584.

Detroit and Milwaukee Railroad.
We learn that the last rail has been laid on this road, thus making complete a connection between Detroit and Mill Point, on Lake Michigan. The first through train passed over the road on Wednesday. The length of the road is 185 miles.

Business of Western Roads.
The earnings of the Western roads for the month of August, thus far reported, show a decided improvement in the last half of the month. The official report of the Illinois Central gives \$196,600 against \$147,027.68 in July, and \$221,893.82 in August, 1887. The Toledo, Wabash and Western will exceed \$100,000, and the Michigan Southern will show a very fair increase for the month over the same period of 1887. The Rock Island will foot up between \$85,000 and \$90,000, of which about two-thirds was earned in the last half of the month; and the Galena also, we understand, will show a corresponding improvement in the third and fourth weeks.—*Cincinnati Commercial*.

New Engines.
The Virginia and Tennessee Company has lately procured a splendid new passenger engine, from the manufactory of Norris of Philadelphia, called the "St. Nazaire." It is one of the most beautiful we have ever seen. She made her first trip up the road on Saturday last and came down on Monday night.

We understand that three other new engines have been ordered—to be called, respectively, "Chesapeake," "El Paso," and "San Francisco." The large and increasing business of the road is creating a steady demand for more motive power. The names of the new engines, which have been ordered, are significant of the future relations and connections of the road.—*Lynchburg Virginian*.

South-Western (Tenn.) Railroad.
At a meeting of the stockholders of this Company, held at Clarksville on the 13th ult., the following gentlemen were elected Directors for the ensuing year: Thomas Maybury, P. H. Maybury, H. H. Harrison, B. J. Hill, S. B. Sparlock, G. M. Smart, W. Britton and John Smith, of Warren; H. Bosson, J. C. Officer, W. P. Goodbar and J. W. Simpson, of White; H. Denton, of Putnam; and P. M. Armstrong and A. Cullom, of Overton.

The Watertown Railroad.
The iron is laid beyond the Madison road, but trains do not run farther west yet than to the Waterloo road. The Company is pushing westward with the road, and will probably get as far as Chase's, 10 miles west of this place, this season, where we learn the first station west of Columbus is to be.—*Columbus Journal*.

White Mountains Railroad.
The "White Mountains Railroad," by a decree of the Supreme Court of New Hampshire, will be sold for the benefit of bondholders at Bath, on November 3d, to the highest bidder. The depots and fixtures of every kind are included in the sale. The road extends from Wells River to Littleton—twenty miles.

Muscogee Railroad.
The following is a statement showing the operations of this road for the last year ending July 31, 1886; also balance sheet and general account of Treasurer.

Total earnings from all sources have been—	
From transportation.....	\$87,412 54
" passengers.....	49,944 68
" mails.....	7,650 00
" car earnings.....	2,289 25
	\$147,296 47

Expenses same period are for—

Transportation.....	\$52,189 10
Repairs of road and bridges.....	31,626 06
	\$83,815 16
Balance net earnings.....	\$63,481 31
To which add balance 1887.....	31,617 58
	\$95,098 89

From which have been paid—

One year's interest on \$249,000 7 per cent. bonds.....	\$17,430 00
Dividends on prefer'd stock.....	3,377 50
Do. guaranteed do.....	4,800 00
Dividend No. 8 on general stock.....	22,430 00
	\$48,037 50

Leaving a balance of..... \$47,061 39
Which is invested as follows:—

In Montgomery and West Point R. R. Stock and Bonds.....	\$17,600 00
Mobile & Girard R. R. Stock.....	3,200 00
Negro man, and Construction account over Capital stock.....	17,192 05
Difference between floating debt in favor of the Company.....	7,651 34
	\$47,061 39

Material on hand, paid out for earnings of road, sufficient to make good all doubtful debts, and leave Profit and Loss account as it stands above.

The receipts from all sources have fallen off, as compared with the receipts of 1887, \$30,512 01, whilst the expenses have been diminished for the same period, \$29,573 79, showing a decrease in net profits of \$938 22.

The decrease in receipts may be attributed, in a great degree, to the general derangement of the finances of the country during the early part of the cotton season.

The Directors have economized every branch of expenditures consistent with the interest of the stockholders.

In the last report attention was called to the importance of a closer connection with the Opelika Branch road; also with the Mobile and Girard railroad, and Barnesville and Thomaston roads; all of which the Directors have had under consideration. The last session of the Legislature passed an act, authorizing the connections at Columbus, on terms to be agreed on, and satisfactory to the city of Columbus. The city has given its consent, but on terms the Directors are unable to comply with at present. The terms proposed by the city are, that this Company shall have the privilege of making a connection with the Opelika

road provided it pay to the city of Columbus \$2,000 for the first year after the connection is made, and \$3,000 for every year thereafter, until this company shall connect with the Mobile and Girard railroad. To make the Opelika connection will cost, according to actual survey and estimates \$11,458 50 for double track, and for single track, \$6,953 50; a sum within the reach of this Company. To make the connection with the Mobile and Girard railroad it will require, according to the estimate of experienced gentlemen, \$100,000; a sum entirely out of the reach of this Company. The Directors, however, have resolved to build the upper or Opelika connection, provided the city will modify its terms so as to bring it within the ability of this Company.

Upon the subject of amalgamation with the South-western railroad, as suggested in last Report, it was unanimously

Resolved, That in view of the present depressed state of railroad affairs generally, this Board thinks it impolitic to touch the subject of amalgamation until the latter part of the present year, when another crop will have been gathered.

The road and rolling stock is in good working condition, and quite sufficient for a large increase of business should it offer the present year. There will be required for next summer's repairs, about one mile of new rail, which is believed can be obtained without increasing expenditures or reducing earnings, by an exchange of old rail and scrap.

Iron Bridges.

(From the London Quarterly Review, July, 1858.)
(Concluded from p. 572.)

The next great step in advance was the application of iron under its most perfect form—of wrought-iron plates, in bowstring, tubular, and box-girders, capable of bearing the heaviest railway trains at the highest speeds. The first, and, up to this time, the most complete, specimen of the simple tubular bridge, is the Britannia Bridge, constructed by Mr. Robert Stephenson across the Menai Straits, which we have already so fully described,* that it is not necessary for us to enter upon any further description of that masterly work—the result of laborious calculation, founded on painstaking experiment, combined with eminent constructive genius and high moral and intellectual courage. Although the Britannia Bridge represented the most scientific distribution of material which could be devised at the date of its construction, it has since been improved upon by the same engineer in the Victoria Bridge, now in course of construction across the river St. Lawrence, near Montreal.

The Victoria Bridge is, without exception, the greatest work of the kind in the world. For gigantic proportions and vast length and strength, there is nothing to compare with it in ancient or modern times. The entire bridge, with its approaches, is only about sixty yards short of two miles. It is five times longer than the Britannia across the Menai Straits, seven and a half times longer than Waterloo Bridge, and more than ten times longer than the new Chelsea Bridge across the Thames!

The Victoria has not less than twenty-four spans of 242 feet each, and one great central span—itself an immense bridge—of 330 feet. The road is carried within iron tubes 60 feet above the level of the St. Lawrence, which runs beneath at a speed of about ten miles an hour, and in winter brings down the ice of some two thousand miles of lake and upper rivers, with their numerous tributaries. The weight of iron in the tubes will be upwards of ten thousand tons, supported on massive stone piers which contain some six, some eight thousand tons each of solid masonry.

So gigantic a work, involving so heavy an ex-

penditure, has not been projected without sufficient cause. The Grand Trunk Railway of Canada—one of the greatest national enterprises ever entered on—is upwards of 1,100 miles in length, opening up a vast extent of fertile territory for the purpose of future immigration, and, by connecting the settled provinces of Western Canada with the seaboard States of the American Union, calculated to afford full scope for the development of the industrial resources of that magnificent colony. Without the Victoria Bridge the system of communication would have been manifestly incomplete. The extensive series of Canadian railways on the north side of the St. Lawrence, terminating opposite Montreal, would, for all purposes of through traffic, be virtually sealed up during the six months of the year that the St. Lawrence is closed against navigation by the ice; and the Grand Trunk system must necessarily have remained to a great extent nugatory, in consequence of the province being cut off from the coast, to which the commerce of Canada naturally tends.

The particular kind of structure to be adopted formed the subject of considerable preliminary discussion. Even after the design of a tubular bridge had been adopted, and the piers were commenced, the plan was made the subject of severe criticism, on the ground of its alleged excessive cost. It therefore became necessary for Mr. Stephenson to vindicate the propriety of his design in a report to the directors of the railway, in which he satisfactorily proved that as respects strength, efficiency and economy, with a view to permanency, the plan of the Victoria Bridge is unimpeachable. Various modes were proposed for spanning the St. Lawrence. The suspension bridge, such as that over the Niagara, was found inapplicable for several reasons, but chiefly because of its defective rigidity, which greatly limits the speed and weight of trains, and consequently the amount of traffic which can be passed over such a bridge. Thus, taking the length of the Victoria Bridge into account, it was found that not more than 20 trains could pass within the 24 hours, a number insufficient for the accommodation of the anticipated traffic. To introduce such an amount of material into the suspension bridge as would supply increased rigidity, would only be approximating to the original beam, and neutralizing any advantages in point of cheapness which might be derivable from this form of structure, without securing the essential stiffness and strength. Iron arches were also considered inapplicable, because of the large headway required for the passage of the ice in winter, and the necessity which existed for keeping the springing of the arches clear of the water line. This would have involved the raising of the entire road, and a largely increased expenditure on the upper works. The question was therefore reduced to the consideration of the kind of *horizontal beam or girder* to be employed.

Horizontal girders are of three kinds. The *Tubular* is constructed of riveted rectangular boiler plates. Where the span is large, the road passes within the tube; where the span is comparatively small, the roadway is supported by two or more rectangular beams. Next there is the *Lattice* girder, borrowed from the loose rough timber bridges of the American engineers, consisting of a top and bottom flange connected by a number of flat iron bars, riveted across each other at a certain angle, the roadway resting on the top, or being suspended at the bottom between the lattices on either side. One of the best known specimens of this bridge is the fine work erected by Sir John Macneil on the line of the Dublin and Drogheda Railway, over the river Boyne near the town of Drogheda; its centre span being of 264 feet. Bridges on the same construction are now extensively manufactured in this country for crossing rivers in India, and are specially designed with a view to their easy transport and erection. The *Trellis* or *Warren* girder is a modification of the same plan, consisting of a top and bottom flange, with a connecting web of diagonal flat bars, forming a complete system of triangulation—hence the

name of "Triangular girder," by which it is generally known. The merit of this form consists in its comparative rigidity, strength, lightness, and economy of material. These bridges are also extensively employed in spanning the broad rivers of India. One of the best specimens in this country is the Crumlin viaduct, 200 feet high at one point, which spans the river and valley of Ebbw near the village of Crumlin in South Wales. The viaduct is about a third of a mile long, divided into two parts by a ridge of hills which runs through the centre of the valley—each part forming a separate viaduct, the one of seven equal spans of 150 feet, the other of three spans of the same diameter. This bridge has been very skillfully designed and constructed by Mr. T. W. Kennard, and, by reason of its great dimensions and novel arrangements, is entitled to be regarded as one of the most remarkable engineering works of the day.

"In calculating the strength of these different classes of girders," Mr. Stephenson observes, "one ruling principle appertains, and is common to all of them. Primarily and essentially, the ultimate strength is considered to exist in the top and bottom—the former being exposed to a compression force by the action of the load, and the latter to a force of tension; therefore, whatever be the class or denomination of the girders, they must all be alike in amount of effective material in these members, if their spans and depths are the same, and they have to sustain the same amount of load. Hence, the question of comparative merit amongst the different classes of construction of beams or girders, is really narrowed to the method of connecting the top and bottom *webs*, so called." In the tubular system the connection is effected by continuous boiler plates riveted together; and in the lattice and trellis bridges by flat iron bars, more or less numerous, forming a series of struts and ties. Those engineers who advocate the employment of the latter form of construction, set forth as its principal advantage the saving of material which is effected by employing bars instead of iron plates; whereas Mr. Stephenson and his followers urge, that in point of economy the boiler plate side is equal to the bars, whilst in point of effective strength and rigidity it is decidedly superior. To show the comparative economy of material, he contrasts the lattice girder bridge over the river Trent, on the Great Northern Railway near Newark, with the tubes of the Victoria Bridge which are now in course of construction. In the former case, where the span is 240½ feet, and the bridge 13 feet wide, the weight, including bearings, is 292 tons; in the latter, where the span is 242 feet, the width of the tube 16 feet, the weight, including bearings, is 275 tons, showing a balance in favor of the Victoria Tube of 17 tons. The comparison between the Newark Dyke Bridge and the Tubular Bridge over the river Aire is equally favorable to the latter; and no one can have traveled over the Great Northern line to York without noting that as respects rigidity under the passing train, the Tubular Bridge is decidedly superior. It is ascertained that the deflection caused by a passing load is considerably greater in the former case; and Mr. Stephenson is also of opinion that the sides of all trellis or lattice girders are useless, except for the purpose of connecting the top and bottom, and keeping them in their position. They depend on their connection with the top and bottom web for their own support; and since they could not sustain their shape, but would collapse immediately on their being disconnected from their top and bottom members, it is evident that they add to the strain upon them, and consequently to that extent reduce the ultimate strength of the beams. "I admit," he adds, "that there is no formula for valuing the *solid* sides for struts, and that at present we only ascribe to them the value or use of connecting the top and bottom; yet we are aware that, from their continuity and solidity, they are of value to resist horizontal and many other strains, independently of the top and bottom, by which they add very much to the stiffness of the beam; and the fact of their containing more material than is necessary

* Quarterly Review, vol. XXXV.

to connect the top and bottom webs, has by no means been fairly established." Another important advantage of the Tubular Bridge over the Trellis or Lattice structure, as pointed out by Mr. Brunel and Mr. Edwin Clarke, consists in its greater safety in event of a train running off the line,—a contingency which has more than once occurred on a tubular bridge, without detriment, whereas in event of such an accident occurring on a Trellis or Lattice bridge, it must, Mr. Clarke says, "infallibly be destroyed." Where the proposed bridge is of the unusual length of a mile and a quarter, it is obvious that this consideration must have had no small weight with the Directors, who eventually decided upon proceeding with the Tubular Bridge according to Mr. Stephenson's original design.

From the first projection of the Victoria Bridge, the difficulties of executing such a work across a wide river, down which an avalanche of ice rushes to the sea every spring, were pronounced almost insurmountable by those best acquainted with the locality. The ice of two thousand miles of inland lakes and upper rivers, besides their tributaries—many of which exceed the Thames in length, depth and volume of water—is then poured down stream, and, in the neighborhood of Montreal especially, it is often piled up to the height of from forty to fifty feet, placing the surrounding country under water, and doing severe damage to the massive stone buildings along the noble front of the city. To resist so prodigious a pressure, it was necessary that the piers of the proposed bridge should be of the most solid and massive description. Their foundations are placed in the solid rock; for none of the artificial methods of obtaining foundations, suggested by some critical engineers for cheapness' sake, were found practicable in this case. Where the force exercised against the piers was likely to be so great, it was felt that timber ice-breakers, timber or cast-iron piling, or even rubble-work, would have proved but temporary expedients. The two centre-piers are eighteen feet wide, and the remaining twenty-two piers fifteen feet. To arrest and break the ice, an inclined plane, composed of great blocks of stone, was added to the up-river side of each pier—each block weighing from seven to ten tons, and the whole firmly clamped together with iron rivets.

To convey some idea of the immense force which these piers are required to resist, we quote a brief account received from Mr. Alexander Ross, the principal engineer superintending the works, of the scene which occurred at the breaking up of the ice in March last, when the pressure of the pack was unusually severe. It must be premised that fourteen out of the twenty-four piers were then finished, together with the formidable abutments and approaches to the bridge. The ice in the river began to show signs of weakness on the 29th of March, but it was not until the 31st that a general movement became observable, which continued for an hour, when it suddenly stopped, and the water rose rapidly. On the following day, at noon, a grand movement commenced; the waters rose about four feet in two minutes, up to a level with many of the Montreal streets. The fields of ice at the same time were suddenly elevated to an incredible height; and so overwhelming were they in appearance, that crowds of the townspeople, who had assembled on the quays to watch the progress of the flood, ran for their lives. This movement lasted about twenty minutes, during which the jammed ice destroyed several portions of the quay-wall, grinding the hardest blocks to atoms. The embanked approaches to the Victoria Bridge had tremendous forces to resist. In the full channel of the stream, the ice in its passage between the piers was broken up by the force of the blow immediately on its coming in contact with the cutwaters. Sometimes thick sheets of ice were seen to rise up and rear on end against the piers, but by the force of the current they were speedily made to roll over into the stream, and in a moment after were out of sight. For the two next days the river was still high, until on the 4th of April the waters seemed

suddenly to give way, and by the following day the river was flowing clear and as smooth as a millpond, nothing of winter remaining except the masses of barge ice which were strewn along the shores of the stream. On examination of the piers of the bridge it was found that they had admirably resisted the tremendous pressure; and though the timber "cribwork" erected to facilitate the placing of floating pontoons to form the dams, was found considerably disturbed and in some places seriously damaged, the piers, with the exception of one or two heavy stone blocks which were still unfinished, escaped uninjured. One heavy block of many tons' weight was carried to a considerable distance, and must have been torn out of its place by sheer force, as several of the broken fragments were left in the pier. We may add that already two of the tubes have been placed *in situ* upon the piers, and that this magnificent work is expected to be completed and opened for traffic by the beginning of 1860.

We have not left ourselves space to more than allude to Mr. Brunel's admirable combination of the principles of the tubular and suspension bridges in the fine structures recently erected by him at Chepstow and Saltash. The latter bridge is of even greater length than the Britannia. Including the land openings it is not less than 2,200 feet long, having nineteen openings, two of which are of the immense span of 455 feet each. These two main openings are spanned by longitudinal beams, suspended from arched tubes of wrought-iron plates by long-linked tension chains, rendered rigid by vertical struts and diagonal bracing. They are both works of great merit, deservedly admired by engineers.

The tubular bridge system has even been extended to Egypt, the land of old Cheops and the Pyramids. The principal feature of the two extensive bridges on the Egyptian railway recently completed is, that the road is carried upon the top of the tubes instead of in the interior. The longer of the two is over the Damietta branch of the Nile near Benha. It contains eight spans or openings of 80 feet each, and two centre spans, which are formed by one of the largest iron swing bridges ever constructed—the total length of the swing beam being 157 feet, and leaving a clear waterway on either side of the central pier of 60 feet. The foundations of this bridge offer another exemplification of the extended use of iron in structures of this sort, for they consist of wrought-iron cylinders filled in with concrete, and sunk by means of a remarkable pneumatic process which we will briefly describe.

The securing of firm foundations for piers has always been a point of the greatest importance with bridge-builders. When the stream could not be diverted, and the bed laid bare for the purpose of getting in the foundations—as is supposed to have been done in the case of the old London Bridge—the early builders adopted the expedient of throwing loose rubble stones into the river until they were sufficiently high and solid to build upon. They were then surrounded with piles to prevent the foundations washing away. Labelye, in constructing Westminster Bridge, employed the method invented by French engineers of getting in the foundations by means of caissons or watertight floating chests, prepared on shore and floated over the points at which it was proposed to build, where they were loaded, and sunk upon as flat a bottom as could be dredged. The masonry was then built up within the casing to high-water mark, when the sides of the caisson were removed, and the work was protected by piles driven side by side all round the pier. The same system was adopted by Mylne in getting in the foundations of Blackfriars Bridge; but both have proved defective, and the failure in each case was greatly hastened by the removal of the numerous piers of Old London Bridge, which increased the velocity of the flowing tide, and the consequent "scour" of the stream in the bed of the river above-bridge. In securing the foundations of the Waterloo and New London Bridges, Rennie adopted the costly but effectual plan of the coffer-dam—that is, enclosing a sufficient space within double or treble

rows of piles driven deep into the bed of the river. The enclosure was made watertight by planking and clay puddle packed between the piles, and the water within the dam was pumped out by means of engine power. The bed of the river, thus exposed was dug out to the proper depth, when timber-piles were driven deep beneath the entire foundation, upon which the solid masonry was then erected. The same plan continues to be pursued in many cases where great solidity of foundation in river-beds is required.

Iron began to be introduced for the purpose of securing foundations, in cases where the superstructure was of a lighter character, or where sands, or mud, or bog, had to be crossed. Hence Dr. Pott's invention of cylinder piles, which consisted in employing iron cylinders, placed in a position for sinking, the lower end being open, and then exhausting them by means of a pneumatic apparatus. The contents of the tube, whether of air or fluid, were thus sucked out, and the tube was forced downwards by simple atmospheric pressure. A succession of piles might be placed over that first sunk, by means of flanges, or other joints, so that piles of any length could be employed. In the case of Mr. Brunel's disc piles, upon which the Morecombe Bay iron viaducts are erected, the reverse process is employed, and the air, water, and sand, instead of being drawn out of the cylinders by exhaustion, are forced out during a slight rotating motion of the piles, which gradually descend to their proper depth. By one or other of these methods, it would even be possible to obtain foundations for a lighthouse on so treacherous a basis as the Goodwin Sands, whilst for crossing the sandy, muddy beds of broad Indian rivers, the invention is calculated to be of great value. Mitchell's screw-pile is another favorite method of employing iron in securing firm foundations in treacherous ground, the pile being so constructed as to be capable of being screwed down to almost any depth. But the most remarkable application of iron for the purpose of securing foundations in difficult ground at great depth, is that which has been recently adopted by Mr. Hughes, and was first employed by him in constructing the piers of the new bridge over the Medway, at Rochester. It was proposed to build piers of cast-iron cylinders, each seven feet in diameter; and it was originally intended to force them to a sufficient depth in the bed of the river (which indicated soft clay, sand, and gravel) by means of Dr. Pott's pneumatic process, which had succeeded in similar cases. But it was discovered, soon after the works commenced, that the bed of the stream was encumbered in many places by the ruins of an ancient bridge, which history records as having been taken down some five hundred years ago. On examination the bottom was found to be a compact mass of Kentish rag stone, through which it was impossible to force the cylinders by atmospheric pressure. It was then determined to reverse the process, and to give to each cylindrical pile the character of a diving-bell, keeping the interior clear of water by forcing air into it by means of a double-acting pump driven by a steam-engine, so that the workmen should be enabled to proceed with the excavations in the interior of the cylinder, and afterwards with the masonry of the foundations. To enable the workmen to pass in and out of the cylinder, and to throw out the excavated stuff as well as to introduce the necessary building materials, without removing the pressure from the water held down by the pneumatic force at the bottom of the excavation, the top of the cylinder was fitted with a moveable wrought-iron cover capable of being securely bolted to it, and over this were placed two cast-iron chambers, or air locks. Those chambers had two openings, one towards the interior, the other towards the exterior, both being securely fitted with an air tight flap, or valve. After a loaded bucket had been raised from the bottom, by means of a light wrought-iron crane fixed within the cylinder and drawn through the opening referred to, the cover was hermetically closed, when the outer aperture was opened and the stuff cast out. Building materials were introduced by the same pro-

cess, and the compression of the air within the interior of the cylinder, in which the men were at work, perhaps some twenty feet below water, was strictly preserved. Strong glass lenses were fitted into the cylinder cover, and in the chambers of the air-locks, to give light to the workmen, but when at a considerable depth candles were constantly used. As the excavation proceeded, the cylinder descended, until the pile was gradually sunk to the desired depth. The piles of the Rochester Bridge were thus carried down thirty feet into the river's bed before the building commenced; in Mr. Stephenson's bridge across the Nile, they are sunk thirty-three feet through soil of a peculiarly sifting character; but in Mr. Brunel's Saltash Bridge they were sunk not less than ninety feet, a depth of foundation that would have been considered fabulous but a few years ago. In the latter case, an exterior cylinder was also employed, which was afterwards withdrawn when the foundations had been secured. It is worthy of remark that the cost of getting in foundations by this process has been very considerably reduced—the total cost of completing those of the Rochester Bridge to four feet above the water line being effected at less than one-half of the estimated cost of coffer-dams alone. The effect of the great atmospheric pressure upon the workmen employed within the cylinder, is sometimes serious. When the pile has descended to a considerable depth, it is possible to work for only a comparatively short time.

On entering the cylinder, great pain is felt in the ears, blood sometimes runs from the nose and ears, while the breathing is considerably affected; persons of weak lungs are found quite unfitted for the work. The men who persevere are said to experience an immense sharpening of the appetite, and consume increased quantities of animal food—doubtless caused by the greater waste produced by the increased quantity of oxygen inspired.

The last great project in iron bridge building that we have heard of—and a project it is likely for some time to remain—is a tubular bridge across the Straits of Dover. A French engineer, M. Thome de Gamond, having projected a tunnel under the sea between England and France, which he states has received the favorable consideration of the French government, Mr. Boyd, not to be outdone in daring, projects his bridge over the sea from Shakespeare's Cliff to Cape Grinez. Mr. Boyd proposes a bridge of iron tubes of 500 feet span, laid upon 190 towers 300 feet high, to be constructed at an estimated cost of £30,000,000 sterling. Apart from the question of practicability, we greatly doubt the utility of such a bridge. The entire number of persons annually traveling between England and all the ports of France, does not amount to 250,000 persons, or less than four days' traffic over London bridge. Seventeen millions of persons annually pass through the railway stations on the south of the Thames, the greater number of whom have to cross the bridges to and from the north side of the river. We are ready to recognize the necessity of an iron railway bridge across the Thames to a convenient station on the north bank—a measure which would, more than any other project, relieve the "block" of the bridges, and the crowded thoroughfares leading to and from the City. But there is no such pressure of traffic across the Channel, the existing means being more than sufficient for its accommodation. To this we must add that there is considerable force in the observation of a celebrated English wit to a Frenchman on the subject of Anglo-French relations. "The best thing that I know of between England and France—is the sea."

NOTICE TO CAR BUILDERS.

WANTED to contract for a train of Passenger Cars, consisting of one Baggage Car, one Accommodation do., one Gentlemen's Coach and one Ladies' Coach. Plans and specifications to be seen at my office.

WILLIAM MAHON,
Chief Eng'r and Sup't
Norfolk and P. R. R. Co.
Norfolk, Va., August 31, 1858. 4137

BURLINGTON & MISSOURI RIVER RAILROAD COMPANY'S LAND & ROAD MORTGAGE BONDS.

SEALED proposals will be received by this Company, at their office, No. 45 City Exchange, Boston, up to the 1st day of October next, at 1 o'clock P. M., for a loan of five hundred thousand dollars (\$500,000,) in money, payable as follows:

- 10—Ten per cent. on the 5th day of October next, which first instalment the Company will retain without issuing Bonds therefor until the last instalment is paid.
- 20—Twenty per cent. on the 1st day of November next.
- 20—Twenty per cent. on the 1st day of December next.
- 10—Ten per cent. on the 1st day of January, 1859.
- 10—Ten per cent. on the 1st day of February, 1859.
- 10—Ten per cent. on the 1st day of March, 1859.
- 10—Ten per cent. on the 1st day of April, 1859.
- 10—Ten per cent. on the 1st day of May, 1859.

For each instalment except the first, Bonds will be issued, with proper adjustment of interest, when payments are made; or payments may be made earlier by notifying the Treasurer of the Company the day, at the time when the first payment is made.

The Construction Bonds now offered are in sums of \$500 and \$1,000 each, to be dated Oct. 1, 1858, having twenty-five years to run, bearing 8 per cent. interest, payable semi-annually in New York, being a part of an issue of one million of dollars, which may be made, and secured by a first mortgage and trust deed to John M. Forbes, Henry P. Kidder, and John N. A. Griswold, Trustees of 40 miles of railroad and its appurtenances, and more than 200,000 acres of valuable land in Iowa, covering also the first section of 35 miles of road from Burlington to Skunk River, which section is subject to liens amounting to \$650,000. The proceeds of the lands constitute a sinking fund for the purchase and extinguishment of these Bonds; and by the terms of said mortgage and trust deed they are receivable at par in payment for any of said lands.

This issue will secure the completion of the road to Ottumwa, in the Des Moines Valley, (a central point for the business of Southern and Western Iowa,) early next year.

Further information may be obtained at the office of the Company or from its late report.

Other things being equal, a preference will be given to the smaller bids made by our stockholders, who are especially invited to share in the loan, the Company reserving to themselves the right to consider the responsibility of the parties making the proposals, as well as the rate offered. With these exceptions, they will award the loan pro rata to the highest bidder.

[Signed] EDWARD L. BAKER, President.
J. N. DENISON, Treasurer.
Boston, September 6, 1858. 3137.

EUROPEAN & NORTH AMERICAN RAILWAY. Notice to Contractors.

SEALED tenders will be received at this office until Friday, 8th October next, at noon, for the grading, masonry and bridging of that portion of the E. & N. A. Railway between Sussex and Salisbury, a distance of Twenty-eight miles.

The line will be laid out in seven sections of about four miles each for which separate tenders will be received. Materials and plant of all kinds to be furnished by the contractors.

Tenders must be accompanied with names of responsible parties willing to become security for the performance of the contract.

The Commissioners do not bind themselves to accept the lowest tender.

Plans, specifications, and terms of tender may be seen at the Engineer's office on and after 20th September.

The line is finally located and now ready for the examination of contractors.

Contractors in the United States may refer to WM. PARKER, Esq., C. E., Boston.

By order of the Board,
R. JARDINE, Chairman.

RAILWAY COMMISSIONERS' OFFICE,
St. John, N. B., Sept. 2, 1858. 4137

CHAS. A. FISHER, Late of the firm of FISHER, DENNY & CO., No. 15 Exchange Place.

STOCKS and Bonds bought and sold on commission. Loans negotiated.

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Agents for the United States,
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MANUFACTURED UNDER THE PATENT OF
J. & W. W. CUMBERLAND,
And under the personal Superintendence of the Inventor.

THE NEW YORK CUMBERLAND METALLIC OIL WORKS,
FOOT OF 24th STREET, EAST RIVER.
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WE respectfully call the attention of those interested in the running of

RAILROADS, STEAMSHIPS, Machine Shops, Factories,

and Machinery of all kinds, to the valuable qualities of our Oil.

1. It is entirely free from Gum, cools heated journals quicker than water, and keeps them cool by its superior anti-friction properties.

2. By its use less motive power is required than in using any other oil yet known. It will move machinery with very perceptibly less motive power than Sperm Oil.

3. The same quantity will last at least 33 1/2 per cent. longer than Sperm, or any other Oil, and the quality is always strictly uniform in its season. We make Summer and Winter Oil.

4. Having largely increased the capacity of our works, we have been enabled to reduce the prices below those of last year; and it is our intention to keep it at all times below the price of Sperm.

The prejudice existing against Oils has very properly grown up, and we are fully aware of the deceptions which have been and still are practised by unscrupulous persons; but we are prepared to substantiate all the foregoing statements relative to the superiority of our Oils, at

OUR OFFICE, 205 BROADWAY, by large numbers of certificates of the best managed lines of Railroads, Steamships, Machine Shops, & Factories in this country, testifying to its value as being greatly superior to any other. Most of the certificates being of prominent Companies, it is probable that more or less of them will be known to all. We have also the MEDALS and DIPLOMAS awarded to us by the AMERICAN INSTITUTE.

We will at all times be ready to refund the money if the facts above stated are not satisfactorily substantiated on trial of the Oil; and we only solicit from those who have never used it very small trial orders. We also make

SUPERIOR GREASE, TALLOW, AND BURNING OIL.

The BURNING OIL will burn in any lamp that will burn Sperm, lasting longer, and burning without smell or smoke.

We manufacture an

OIL EXPRESSLY FOR SEWING MACHINES, GREATLY SUPERIOR TO ANY OTHER, AND WITH LESS SMELL.

Several have attempted to imitate our Oil, calling it "METALLIC OIL," as well as giving it a similar appearance; and we would CAUTION buyers against them, and advise them to see that our brand—

"NEW YORK CUMBERLAND METALLIC OIL WORKS, FOOT OF EAST 24th ST."

with the names of the inventors and kind of Oil, is upon every package, however small.

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DEALERS IN
Sperms, Whale and Elephant Oils,
Adamantine Car and other Candles,
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TAW'S LUBRICATING
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FOR RAILROAD CARS
AND HEAVY MACHINERY.
THIS celebrated GREASE has been in use upwards of
Ten years; and is in the opinion of FORTY RAIL-
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The Cheapest and Best Lubricator in use.
Parties ordering, will please state the kind of box, or descrip-
tion of machinery.

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RAILROAD IRON
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EQUIPMENTS.
T. A. HOWLAND & CO.
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ers are prepared to supply Railroad Companies with
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ARE prepared to fill orders for RAILS of the best quality
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OFFER RAILS of their own manufacture deliverable as may
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THE subscribers have American Railroad Iron for sale as
above; also Welsh Iron in New York and other markets.
FABER, PERKINS & CO.,
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New York, August 10th.

FOR SALE.

THE undersigned offer for sale the following valuable property
in the city of Alexandria, Virginia.
AN IRON FOUNDRY, with steam power, cupolas,
cranes, flasks, and all the fixtures requisite for a first class
business, also an extensive assortment of patterns for Railroad
Machinery, Mill Gearing, Steam Engines, etc., etc.

The foundry building is of brick, fire-proof, well-lighted and
has a clear floor 100 ft. 160 ft. Also, the square of ground on
which the above is located, fronting on the Orange & Alexan-
dria Railroad and containing about 34,600 square ft. of ground.
The position is a very favorable one for the transaction of
an extensive foundry business and well worthy the attention
of parties disposed to engage in that business.

Also for sale or lease their extensive LOCOMOTIVE,
CAR BUILDING AND MACHINE WORKS in
Alexandria, situated on the River Potomac, comprising Real
Estate, Buildings and Machinery for the transaction of a large
machine business of any kind.

The location is considered a most desirable one, being im-
mediately on deep navigable water and in a city from which
three important railroads diverge, one of which connects with
a line of roads terminating at New Orleans, with diverging
lines from the South and South-west.

The subscribers will sell or lease this property or they will
work it in connection with parties who are disposed to invest
capital to purchase an interest with them. It is not deemed
necessary to give an extended description of the property, as
parties disposed to negotiate will probably examine for them-
selves.

For terms, etc., apply to
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SMITH & PERKINS,
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FOR
1858,

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than three-fourths of the current cost of relays, and repairs;
while the rolling stock will last twice as long, with a large re-
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expense of from \$1,500 to \$2,000 per mile, which is equi-
valent to an additional value of some \$25,000 on every mile
of road as compared with semi-wooden structures of nearly
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Average cost of the iron railway, exclusive of grading, \$11-
000 per mile, and worth, at any time during 100 years, \$6,500
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This track is laid without tie, string piece, bolt, or spike;
the joints are rendered perfect by an upright iron wedge
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Expense per mile, when laid, from \$5,000 to \$6,000.
To examine a section of either track, or for descriptive
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S. A. BEERS, Civil Engineer,
Inventor and Patentee for U. S. and Europe.

PROPOSALS FOR
LEASING
THE CHESTER VALLEY RAILROAD.

PROPOSALS will be received at the office of the Chester
Valley Railroad Company,

No. 429 WALNUT ST., PHILADELPHIA,
until the Thirtieth day of September next, for furnishing Stock
and Machinery, running the road and keeping it in good order
and condition for a period of not less than five years from the
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Specifications can be seen at the office.
The Chester Valley Railroad begins at Bridgeport, Penn-
sylvania, on the Schuylkill River, near Norristown, (a point 6
miles from Philadelphia) where it connects with the Philadel-
phia and Norristown Railroad on the North bank, and the
Philadelphia and Reading Railroad on the South bank. It is
twenty-one miles in length, and runs for the greater part of
that length in a line nearly straight (having but few curves) to
the terminus at Downingtown, Chester county, where it con-
nects with the Pennsylvania Railroad. With the exception of a
light grade near Bridgeport, the Road is perfectly level.

The great Chester Valley which it traverses is unsurpassed
in the abundance and fertility of its crops and farming pro-
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All proposals to be addressed to **BENJAMIN RUSH, Esq.,**
President of the Chester Valley Railroad Company, Philadel-
phia.

6133

CHAS. O'NEILL,
Secretary.

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W. D. STARLING, Metal Broker and Rail Inspector,
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THESE Bars are warranted superior to any other kind in
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They are adopted in most of the extensive Manufactories,
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4 ft 8 1/2 in. Gauge. 8 ft. and 4 ft. 6 in. Wheels.
Cylinders, 15x24. 187 Flues, 1 1/2 x 11 ft. 7 in.
These Engines cost \$9,000 each, and have been built
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Railroad Managers will be interested
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The "Tubular Rail" of 50 lbs. per
yard has greater strength and elastic-
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solid rails of 60 lbs. per yard.
Its density is greater.
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Unlike other new forms of rail, it can be put down on the
same chairs, and with the same fastenings, used with common
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The arrangements to manufacture are such that these rails
can be furnished of any American or Foreign make.
Reference is made to the officers of all the railroads in the
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Additional particulars and circulars may be had by address-
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E. W. STEPHENS,
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Are now prepared with increased facilities to contract for
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Having leased the extensive Works of the
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From 3/4 to 5 inches bore, with Screw and Socket
Connections. T's, L's, Stops, Valves, Flanges,
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Having the selling agency of a number of the Rolling Mills,
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1788

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THIS is a new ROLLING MILL, having been working
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The capacity is Forty Tons per day. It is well situated for
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Orders are now solicited

From Roads in other sections of the country; and work will
be made with New Iron in the heads, if desired.

Apply to

ALBERT G. SMITH,
President of the Incorporation.
February, 1855.

RAILROAD IRON.

The Crescent Manufacturing Company,
WHEELING, VA.,

ARE now prepared to execute, at short notice, orders for
Rails of any required pattern and weight, and to re-roll
old rails, on the most liberal terms. Address
N. WILKINSON, Sec'y,
WHEELING, VA.

RAILROAD IRON. CONTRACTS FOR RAILS,

AT A FIXED PRICE OR ON COMMISSION,
DELIVERED AT AN ENGLISH PORT,
Or at a Port in United States,

WILL BE MADE BY THE UNDERSIGNED,
THEODORE DEHON,
10 Wall st., near Broadway, New York.
500 tons T rails on hand 54 to 57 lbs. per linear yard.

RAILROAD IRON.

The undersigned, Agents for leading Manufacturers in
STAFFORDSHIRE AND WALES,
ARE PREPARED TO CONTRACT FOR DELIVERY
On board ship at Liverpool, or Welsh port.

C. CONGEE & SON,
18 Cliff st., N. Y.

RAILROAD IRON.

The Undersigned, Agents for the Manufacturers,
ARE PREPARED TO CONTRACT TO DELIVER
Free on Board at Shipping Ports in England, or
At Ports of Discharge in the United States,
RAILS OF SUPERIOR QUALITY,
And of Weight or Pattern as may be required.
VOSE, LIVINGSTON & CO.,
New York, Aug. 1, 1855 9 South William Street.

RAILROAD IRON.

The Subscribers, Agents for the Manufacturers,
ARE PREPARED TO CONTRACT FOR THE
DELIVERY OF RAILROAD IRON AT ANY PORT
in the United States or Canada, or at a shipping port in Wales.
WAINWRIGHT & TAPPAN,
Boston, June, 1851. 29 Central Wharf.

RAILROAD IRON AND COMMON BARS.

THE UNDERSIGNED,
Sole Agents to Messrs. GUEST & CO.,
The Proprietors of the Dowlais Iron Works,
Near Cardiff, South Wales,

ARE duly authorized to contract for the sale of their G. L.
Railroad Iron, and Common Bars, on most advantageous
terms.

R. & J. MAXIN, 70 Broad st.

Railroad Iron.

300 TONS WELSH RAILS, Erie pattern, 56 lbs. to
the yard, in bond, or duty paid.
Also, RAILROAD SPIKES, LUBRICATING OILS,
METALS, and other RAILROAD MATERIALS for sale
by
DELAPIERRE & LOOKWOOD,
June 1 1855 2m 45 Cliff st., New York.

NEW ENGLAND RAILROAD MUTUAL FIRE INSURANCE CO.

Office, No. 11 Railroad Exchange, Boston.

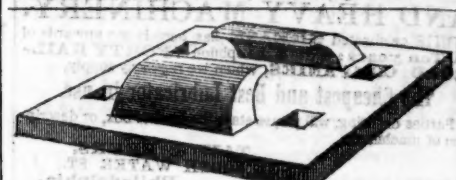
THIS Company, composed of Railroad Corporations, in-
sures on the Mutual principle, against loss by Fire,
BUILDINGS, BRIDGES, ROLLING STOCK, and other
property in which the members have an insurable interest.

DIRECTORS:

R. Hooper, Uriel Crocker, Charles L. Putnam,
Stephen Fairbanks, Wm. Minot, Jr., S. H. Walley,
Wm. A. Crocker, I. M. Spelman, Waldo Higginson.

WALDO HIGGINSON, President.

CHARLES G. HOBART, Secretary.



JACOB ROWE,

GENERAL COMMISSION MERCHANT,
Nos. 6 & 8 Broadway, and 8 Beaver St.

ORDERS received for all sizes MERCHANT BAR and
RAILROAD IRON, AMERICAN and SCOTCH
PIG IRON, SUPERIOR WROUGHT IRON RAILROAD
CHAIRS, SPIKES, CAR WHEELS, NAILS, ETC., ETC.

OFFICE, 8 BROADWAY,
Corner Beaver st., opposite the Bowling Green, NEW YORK.

REFERS TO
Messrs. Cooper & Hewitt, Messrs. Stillman, Allen & Co.
Messrs. Wm. Outhout & Bro., Peter Cooper, Esq.
Messrs. Marshall Lefferts & Bro., James L. Jackson, Esq.

ST. LOUIS STEAM FORGE.

ROBERTSON & LOWE,
COR. MAIN AND CEDAR STREETS,
ST. LOUIS, MO.,

MANUFACTURE

CAR AXLES,
AND EVERY DESCRIPTION OF
LOCOMOTIVE FORGINGS.

ALSO,

STEAMBOAT SHAFTS, CRANKS, TOBACCO SORREWS,
HAMMERED BAR IRON,
AND EVERY VARIETY OF
Forgings for Machinists' Use.

NOTICE TO

Presidents, Directors and Gen. Superintendents
OF RAILROADS.

I WISH TO INTRODUCE MY NEW PATENT
CAR BRAKE

which I claim to be the cheapest, strongest and most efficient
of any now in use. AND WILL AT MY OWN COST
PUT THE BRAKE ON ANY CAR OF A COMPANY
WHO WOULD DESIRE TO TEST ITS MERITS. All
those interested are invited to call at 61 Chambers st.,
where the model and specifications are to be seen.

6m26

J. D'HOMERGUE.

AMERICAN COAL CO.

GEORGE'S CREEK SEMI-BITUMINOUS COAL.

THIS Company is prepared to contract for the sale of their
coal, delivered on board vessels at the depots at Baltimore,
Georgetown and Alexandria, on the most favorable terms. The
coal is from the George's Creek basin, entirely free from slate,
and for steamers, locomotives and foundries is unsurpassed and
unequalled in quality by any coal brought to this market, ex-
cept that coming from the same basin.

The Company will procure vessels at the lowest rates, when
desired, without charge.

Orders for quantities less than a cargo, will be filled at the
yard of **RANDALL & MORRELL,** Jersey City, adjoining the
Unard Wharf.

Office, 50 Exchange Place.

W. TITUS, Sec'y.

VAN RIPER'S DINING SALOON.

Nos. 34 and 34 1/2 Pine Street.

MERCHANTS and others doing business in the vicinity of the
Custom House, should patronize this well conducted es-
tablishment.

Every care will be taken to give satisfaction to the most fas-
tidious, and the proprietor feels confident in his ability to please
those of his friends and strangers who may favor him with a call.
THEODORE VAN RIPER, Prop'r.

H. H. GOODMAN & CO.,
No. 7 WALL ST., NEW YORK.
Dealers in Railway, City, County, and State
BONDS,
RAILS, LOCOMOTIVES, &c.
We have on hand and for sale, of County Bonds—
Hardin County (Ky), 6 per cta. Davidson City (Tenn), 6 p.cta.
Carter, Bath, and Montgomery (Ky), 6 per cta. Iowa County (Wis), 8 per cta.
Also a variety of CITY, COUNTY, and RAILWAY
SECURITIES in smaller lots.
April 30th, 1858.

RAILROAD SUPPLIES.
WILLIAMS & PAGE,
No. 44 Water, between Congress and Kilby Streets,
Boston, Mass.

**Iron Rails, Chairs, & Spikes,
FREIGHT AND COAL CARS,**
(on hand or made at short notice.)

**Wheels and Axles of all kinds,
LOWMOOR, AMES', BOWLING, AND NASHUA TIRES,
IRON AND STEEL,**
Of all kinds for Shops and Tracks.

**Car Trimmings, Paints, Oil, Varnish, Car and Switch
Locks, Ventilators, Lanterns, Head-Lights, Gauges, Rubber
Springs, Chairs, Hose and Bolting, Ash, Pine and other Tim-
ber, and ALL MATERIALS USED in Equipment and Repairs of
Railroads, Engines and Cars, at lowest prices.**

THOS. S. WILLIAMS, PHILIP S. PAGE,
Late Supt Boston & Me. R. R. Late PAGE, ALDEN & Co.

REFERENCES.

JAMES HAYWARD, President PHILIPS, DODGE & Co., N. Y.
Boston and Maine R. R. COOPER, HEWITT & Co., do.
Capt. Wm. H. SWIFT, Boston. REEVES, BUCK & Co., Phila.
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OLD STAND.
RAILROAD AND CAR FINDINGS.
A. BRIDGES & CO.,
SUCCESSORS TO BRIDGES & BRO.,

WILL continue the Railroad and Car Furnishing business,
and deal in Locomotive and Hand Lanterns, Enamelled
Head Lamps, Brass and Silver Trimmings, Cotton Duck for Car
Covers, Portable Forges and Jack Screws, Bolts, Nuts and
Washers, Ship and Bridge Bolts, and Iron Forgings of almost
every description, etc., etc., at the OLD STAND,
64 COURTLAND ST., NEW YORK.

Orders for the purchase of goods on commission, aside
from our regular business, respectfully solicited.

**ALBERT BRIDGES, { Of the late firm of
JOEL C. LANE. { BRIDGES & BRO.**

F.W. Rhinelander, James A. Boorman, Edwin A. Post.
RHINELANDER, BOORMAN & CO.,
RAILWAY AGENTS

AND
COMMISSION MERCHANTS,
SUPPLY ALL MATERIAL AND ARTICLES USED IN THE
CONSTRUCTION AND OPERATING OF RAILWAYS.
BANK OF COMMERCE BUILDING, NEW YORK.

REFER TO
John A. Stevens, Esq., President Bank of Commerce.
Sam'l Sloan, Esq., President Hudson River Railroad Co.
James Boorman, Esq., Messrs. Stillman, Allen & Co.
Messrs. Cooper & Hewitt, Messrs. Duncan, Sherman & Co.

W. K. JESUP & CO.,
No. 44 EXCHANGE PLACE,
**RAILWAY AGENTS AND
COMMISSION MERCHANTS,**
DEALERS IN FOREIGN AND AMERICAN
RAILROAD IRON,
HAVE FOR SALE ON COMMISSION
LOCOMOTIVE ENGINES,
PASSENGER AND FREIGHT CARS,
**WROUGHT AND CAST IRON CHAIRS,
Spikes, Car Wheels, Axles, Tyres, etc.**

S. B. BOWLES,
MANUFACTURER AND DEALER IN
**RAILROAD
SUPPLIES,**
No. 12 GOLD STREET,
(Between PLATT and MAIDEN LANE.)
NEW YORK.

A. S. & A. G. WHITON
72 PINE ST., NEW YORK,
DEALERS IN
**RAILROAD IRON,
CHAIRS AND SPIKES,
LOCOMOTIVES,
PASSENGER AND FREIGHT CARS.**
MANUFACTURERS' AGENTS
FOR Seller's Iron Turn Tables, Dimpfel's Patent Blower,
Gardiner's Volute Car Springs and
RAILWAY SUPPLIES GENERALLY.
ALSO
NEGOTIATORS OF SECURITIES.

GEO. M. FREEMAN,
SUCCESSOR TO
PRATT & FREEMAN,
PHILADELPHIA
RAILWAY SUPPLY AGENCY,
No. 123 WALNUT STREET,
PHILADELPHIA.

**Railroad Materials, Locomotive and Car Findings,
MACHINERY AND MACHINISTS' TOOLS,
MINERS' TOOLS, ETC.
COTTON WASTE, ETC.
WHITE AND YELLOW CAR GREASE,
LOCOMOTIVE BRASS WORK,
Baggage Checks, Barrows, etc., etc.,
RAILROAD LANTERNS, SIGNAL LIGHTS,
STEAM GAUGES, COCKS AND WHISTLES,
INDIA RUBBER HOSE PACKINGS, ETC.
LANTERNS OF ALL DESCRIPTIONS,
ENGINE, STATION, AND SIGNAL BELLS,
Superior Car Upholstery, etc., etc.
AGENCY OF THE KEROSENE OIL COMPANY.
Orders solicited, promptly filled, and forwarded with
despatch and care at the manufacturers' lowest prices.**

CINCINNATI.
HEWSON & HOLMES,
AUCTIONEERS AND STOCK BROKERS,
Have regular sales of Stocks, Bonds, and other Securities
EVERY
WEDNESDAY AND SATURDAY,
At 1 o'clock at the Merchant's Exchange,
AND IF REQUIRED,
SPECIAL SALES
ON MONDAY, TUESDAY, THURSDAY, AND FRIDAY.
OFFICES—Nos. 83 and 85 Walnut street.
Where they offer at private sale
A GREAT VARIETY OF
State, County, City and Railroad BONDS and STOCKS
NEGOTIATE
LOANS, NOTES, BILLS OF EXCHANGE,
AND COLLAT
DIVIDENDS, LEGACIES, DEBTS, &c.
REFERENCE—Ohio Life Insurance & Trust Company Bank

CINCINNATI STOCK EXCHANGE.
KIRK & CHEEVER,
Stock Brokers and Railroad Agents,
NO. 83 WEST THIRD STREET,
CINCINNATI, OHIO.
Railroads Stocks, Bonds, &c., bought and sold on commission.
Regular sales at public auction at the MERCHANTS' EXCHANGE.

**FINAL SALE OF
LOTS!
KENTUCKY CITY!**

On MONDAY, 27th day of
SEPTEMBER, 1858,
WILL commence the second and final Sale of Lots in this
growing and most interesting
YOUNG CITY.

The Trustees in announcing this Sale, feel warranted in as-
suring the public that at no point in the West can there be
found **EQUAL OPPORTUNITIES** for safe and
profitable investment.

KENTUCKY CITY
(is located on the east bank of the Mississippi, upon the near-
est high land, (or above overflow), to the mouth of the Ohio
river, and for all practical business purposes, is, and will for-
ever be the mouth of the Ohio.

KENTUCKY CITY and **COLUMBUS** contains
four thousand three hundred acres, laid off into lots, streets,
alleys, etc.; 500 acres in quarter and half lots; the remainder
in one, two, four, ten, twenty, forty and sixty acre lots. It is
from 4 to 210 feet above high water mark, and surrounded by a high,

Healthy and Fertile Country,
Rapidly growing in wealth and population, with a salubrious
climate, and generous, liberal, enlightened and refined society.
There was wanted but one further feature to make this the most
commanding point on the great "Father of Waters." This
was uninterrupted communication with the interior of the ad-
jacent States, to accommodate internal commerce and facilitate
the interchange of commodities. That want is now fully met
by the established system of

RAILROADS
Which has fixed **KENTUCKY CITY** as the center
of a net-work of Railroads stretching out and affording
connections in all directions with the interior and with the cities
and lakes of the North and East, and ramifying throughout
the whole South and West.

That the public may not be led off by suspicious that this is
a mere city on paper, we request you to enquire—to come and
see for yourselves.

See the MAP—**Kentucky City** is the northern termi-
nus of the Great Mobile and Ohio Railroad—400 miles long.
See also our railroad connection by Union City and along the
Nashville and North western Railroad via Paris and Clark-
sville to Nashville, 170 miles. Also, by Keston and along the
Memphis and Ohio road to Memphis, about 160 miles. Also,
via Jackson, Tenn., Holly Springs, Canton and Jackson, Miss.,
to New Orleans, 500 miles. Also, via Corinth, thence along
the Memphis and Charleston Railroad to Tusculum, Ham-
ville, Chattanooga, Knoxville and the East, and with Atlanta
and Savannah, Georgia. Also, by the Fulton and Texas Rail-
road via Little Rock, through Arkansas and Texas to the
Pacific Ocean.

Also, by the Iron Mountain Railroad to St. Louis, 150 miles.
Also, by the

STEAM FERRY PACKETS,
Plying to and fro with Cairo and the Illinois Central Railroad
to Chicago and the whole North-west.

Intelligent, enterprising and practical men who will come and
see and investigate in person, will be convinced that the extra-
ordinary commercial advantages and facilities of Railroad
and Steamboat Transportation possessed by **Kentucky City** secures to this point requisites for manufactur-
ing and commercial purposes, which must, of necessity, cause
it speedily to become the great intermediate city between the
NORTH and the **SOUTH**, at which the productions and
manufactures of each section will be concentrated for sale, or
to be exchanged for those of the other.

The Hon. Post Master General, in a recent report, says:
"No man can look at the map of this country without his eye
finally resting on the mouth of the Ohio as the center of popu-
lation and commerce of the United States."

The sale is to be made without reserve, and in good faith,
and there will always be a reliable gentleman on the ground,
whose pleasure and duty it will be to give all needful infor-
mation, and answer all written or oral interrogatories. Then let
no one permit himself to be led off by rumor, when the facts
are so accessible to all.

Sale to commence—
Monday, September 27th, 1858
and continue until all the Lots are sold.

TERMS OF SALE.
Ten per cent, cash in hand, for the residue, a credit of one
and two years, with interest.

BEN EDWARDS GREY,
E. L. BULLOCK, } Trustees.
W. H. H. TAYLOR,
Address for full information,
FRANK JAY McLEAN, Att'y in fac.
Kentucky City, Ky.

THE ALBERT FREESTONE COMPANY

SUPPLY THE BEAUTIFUL

Buff-Colored Freestone

WHICH enters into a large number of the finest Buildings recently erected in New York, Baltimore, Philadelphia, Portland, Halifax, Norfolk, St. John, etc. They also furnish the SAME STONE of a BROWN COLOR with a ROSE TINGE. Orders will be taken for any point on the Atlantic Seaboard or for Inland Cities.

Directors:—JOHN TRAYNOR, CHARLES E. ANDERSON, JOSEPH FOWLER, SAMUEL P. DIMMOCK, M. DUDLEY BEAN, GEORGE E. COOK, WILLIAM H. DUNCAN, HENRY V. POOR.

John Traynor, Esq., Pres't; CHARLES E. ANDERSON, Esq., Vice Pres't; JOSEPH FOWLER, Esq., Treas'r; SAMUEL P. DIMMOCK, Secretary.

Office: 15 NASSAU ST., (Commonwealth Building), N. York. Communications by Mail should be addressed to the Secretary.

Manager of the Quarries—CAPT. GEO. LANG, Harvey, New Brunswick.

"The great beauty of this stone commended it to our committee; the stone is universally admired."—*Pennsylvania R. R. Co.*

"No sulphuret of iron in it."—*Francis Alger, Esq., Boston.*

Average resisting power to the square inch 6,632 lbs.—more by 3,110 lbs. than any other Freestone in use.—*Hatfield's Tests.*

"Is without grain or cleavage."—*T. Bursall, Engineer, Birmingham, Eng.*

"Coming to be the favorite material."—*N. Y. Times.*

"Finest Freestone in N. America."—*The late J. G. Percival.*

"Surfaces of this Freestone, for ages exposed to the weather, have perfectly withstood the action of water and frost."—*Professor C. T. Jackson, Boston, Mass.*

"It has a color unsurpassed, one of the neutral tints which harmonizes with everything in nature, and is equally pleasant to the eye in fair day or foul, and whether the building has a background of sky, water or foliage."—*N. Y. Express.*

"It contains no scale of mica, no carbonate of lime."—*F. Alger.*

"A grand building stone."—*New York Evening Post.*

"Beyond doubt the very best material we have ever seen in this country."—*John Struthers, Philadelphia.*

"Frost, snow and ice of the severest winters have no effect upon it."—*John Whitelaw, Baltimore.*

"Light, agreeable and cheerful color, and gives a pleasant aspect to our streets. Retains its uniformity of color."—*Professor C. T. Jackson, Boston, Mass.*

"I greatly admire your beautiful Freestone, and only regret that the Building to which I have devoted so much of my time and means, was not built of it."—*Peter Cooper, Esq., N. York.*

"Must not be confounded with any other stone from the British Provinces."—*Company's Circular.*

"A monopoly of the very best building material in the world."—*Professor J. L. Hayes, Washington, D. C.*

WATERBURY BRASS AGENCY,

ALEX. ANDERSON, AGENT.

52 BEEKMAN STREET, NEW YORK,

FOR THE SALE OF

SHEET BRASS,

COPPER AND BRASS WIRE,

BRASS AND COPPER TUBING,

COPPER RIVETS AND BURS, ETC.

Manufactured at WATERBURY, Conn.

PROSSER'S PATENT

LAP-WELDED

IRON BOILER TUBES,

SAFE FROM END TO END.

EVERY article necessary to DRILL THE TUBE-PLATES and to SET THE TUBES in the best manner.

Tube CLEANERS, Steel-Wire and Whalebone BRUSHES.

Tubes for ARTESIAN WELLS. Pump Shafts. Line

Shafting, conveying Steam or Water, etc., etc. SCREWED TOGETHER, FLUSH ON BOTH SIDES, OR WITH COUPLINGS either outside or inside; also EXPANDED INTO FLANGES.

PATENT SURFACE CONDENSER.

AGENTS FOR

KRUPP'S CELEBRATED CAST-STEEL

FOR SHAFTS, RAILWAY AXLES, TIRES, PLATER'S ROLLERS, RIFLE AND GUN BARRELS, CANNON, &c.

THOMAS PROSSER & SON,

28 PLATT ST., NEW YORK.

Railroad Iron.

700 TONS, cast, or in store, of "W. Crawshaw's make. For sale by

THEODORE DEHON,

10 Wall st., near Broadway.

18

NEW YORK.

Railroad Iron.

1,000 TONS Railroad Iron, weighing about 55 lbs. per yard, "Eric" pattern, of best quality Welsh make, now ready for delivery, for sale by

VOSE, LIVINGSTON & CO.,

August 1st, 1857.

9 South William st.

RICHARD B. COWLEY,

MANUFACTURING JEWELER,

34 Division st., 3rd floor, City of New York.

MASONIC, Sons of Temperance and Odd Fellows Lodge

Jewelry, from new patterns and dies, made to order and

constantly on hand.

All orders promptly attended to.

RAILROADS AND STEAMBOATS.

FOR BOSTON AND PROVIDENCE via NEWPORT and FALL RIVER.—The splendid and superior steamer METROPOLIS, Capt. Brown, leaves New York every TUESDAY, THURSDAY and SATURDAY, at 5 o'clock P.M., and the BAY STATE, Capt. Jewett, on MONDAY, WEDNESDAY and FRIDAY, at 5 o'clock P.M.; from Pier No. 3, N.R., near the Battery; both touching at Newport each way.

Hereafter no rooms will be regarded as secured to any applicant until the same shall have been paid for.

Freight to Boston is forwarded through with great dispatch by an Express Freight Train.

WM. BORDEN, Agent, Nos. 70 and 71 West st.

The REGULAR MAIL LINE

VIA STONINGTON, for BOSTON and PROVIDENCE
—Inland route—the shortest and most direct, carrying the Eastern Mail.

The steamers PLYMOUTH ROCK, Capt. Joel Stone, and C. VANDERBILT, Capt. W. H. Frazee, in connection with the STONINGTON & PROVIDENCE and BOSTON & PROVIDENCE RAILROAD, leaving New York daily (Sundays excepted) from Pier No. 2, North River, first half above Battery Place, at 6 o'clock P.M., and Stonington, at 8 P.M.; or on the arrival of the mail train which leaves Boston at 5.30 P.M.

The C. VANDERBILT, from New York Monday, Wednesday and Friday; from Stonington Tuesday, Thursday and Saturday.

The PLYMOUTH ROCK, from New York Tuesday, Thursday and Saturday; from Stonington Monday, Wednesday and Friday.

Passengers proceed from Stonington per railroad to Providence and Boston in the Express Mail Train, reaching said places in advance of those by other routes, and in ample time for all the early morning lines connecting North and East.

Passengers that prefer to remain on board the steamer, enjoy a night's rest undisturbed, breakfast if desired, and leave Stonington in the 7 A.M. train for Providence and Boston.

A baggage master accompanies the steamer and train through each way.

For passage, berths, state rooms or freight, apply on board the steamer, or at the Freight Office, Pier No. 2 North River, or at the office No. 10 Battery Place.

RAILROAD MAPS,

THE BEST "GUIDE" IN THE WORLD,

FOR SALE AT THIS OFFICE.

Price of Pocket Edition, by mail, pre-paid. \$1.00

" Mounted on Rollers. 3.00

" " " Colored in Counties. 5.00

RAILROADS.

NEW YORK & NEW HAVEN R. R.

1858. SUMMER ARRANGEMENT. 1858.

Commencing May 13, 1858.

Passenger station in New York, corner 27th st. and 4th av.; entrance on 27th st.

TRAINS LEAVE NEW YORK

For New Haven, 7 A.M. [ex.]; 12.45, 3.45, 4.20 [ex.], and 5.30 P.M. For Bridgeport, 7 A.M. [ex.], 12.45, 3.45, 4.20 [ex.], and 5.30 P.M. For Milford, Stratford, Fairfield, Southport and Westport, 7 A.M.; 12.45, 3.45, 5.30 P.M. For Norwalk, 7, 9 A.M.; 12.45, 3.45, 4.20 [ex.], 4.45, 5.30, 6.30 P.M. For Darien and Greenwich, 7, 9 A.M.; 12.45, 3.45, 4.45, 6.30 P.M. For Stamford, 7, 8 [ex.], 9 A.M.; 12.45, 3.45, 4.20 [ex.], 4.45, 5.30, 6.30 P.M. For Port Chester and intermediate stations, 7, 9 A.M.; 12.45, 3.45, 4.45, 5.30, 6.30 P.M.

CONNECTING TRAINS.

For Boston, 8 A.M. [ex.], 4.20 P.M. [ex.]. For Hartford and Springfield, 8 A.M. [ex.], 4.20 P.M. [ex.]. For Connecticut River Railroad to Montreal, 8 A.M. [ex.], and 4.20 P.M. [ex.], to Northampton. For Canal Railroad to Northampton, 8 A.M. [ex.], and 12.45 P.M. For Housatonic Railroad, 8 A.M., 4.20 P.M. For Naugatuck Railroad, 8 A.M., 12.45 and 3.45 P.M. For Danbury and Norwalk Railroad, 7, 9 A.M., 4.20 P.M.

JAMES H. HOYT, Supt.

NEW JERSEY RAILROAD.

For Philadelphia and the South and West,

VIA JERSEY CITY.

MAIL and Express Lines leave New York at 8 and 11 A.M., and 4 and 6 P.M.; fare \$3; 11 and 4 go to Kensington. Through Tickets sold for Cincinnati (\$17 and \$18.50) and the West, and for Baltimore, Washington, Norfolk, etc., and through baggage checked to Washington in 8 A.M. and 6 P.M. trains.

W. WOODRUFF, Assistant Supt.

No baggage will be received for any train unless delivered and checked fifteen minutes in advance of the time of leaving.

New York and Erie R. R.

On and after Monday, May 10, 1858, and until further notice

PASSINGER TRAINS

will leave Pier foot of Duane street, as follows, viz:—

DUNKIRK EXPRESS, at 6 A.M. for Dunkirk and principal intermediate stations.

MAIL TRAIN, at 8 A.M., for Dunkirk and Buffalo, and intermediate stations.

ROCKLAND PASSENGER, at 3 P.M., from foot of Chamber st., via Piermont, for Suffern's and intermediate stations.

WAY PASSENGER, at 4 P.M., for Newburgh, Middletown and intermediate stations.

NIGHT EXPRESS, at 5 P.M. for Dunkirk and Buffalo.

The above trains run daily, Sundays excepted.

These Express Trains connect at Elmira, with the Elmira, Canandaigua and Niagara Falls Railroad, for Niagara Falls; at Binghamton with the Syracuse and Binghamton Railroad, for Syracuse; at Corning with Buffalo, Corning and New York Railroad, for Rochester; at Great Bend with Delaware, Lackawanna and Western Railroad, for Beranton; at Hornellsville with the Buffalo and New York City Railroad, for Buffalo; at Buffalo and Dunkirk with the Lake Shore Railroad or Cleveland, Cincinnati, Toledo, Detroit, Chicago, etc.

CHARLES MORAN, President.

HUDSON RIVER R. R.

FROM May 10th, 1858. Trains will leave Chambers street station as follows: Express Trains, 6 A.M., and 5 P.M.; Albany and Troy Passenger Train, 11 A.M. and 10 P.M.; for Dobbs' Ferry, 6 A.M. and 4 P.M.; for Tarrytown, 7 P.M.; for Sing Sing, 10 A.M. and 3 P.M.; for Poughkeepsie, 8 A.M., 1 P.M. and 3 P.M.; for Peekskill, 5 P.M. The Poughkeepsie, Peekskill, Sing Sing, Tarrytown and Dobbs' Ferry Trains stop at the Way stations. Passengers taken at Chambers, Canal, Christopher and Thirty-first streets. Trains for New York leave Troy, at 4 A.M. and 10.25 A.M., and 4 P.M. and 9 P.M.; and Albany, at 4 A.M. and 10.55 A.M., and 4.05, 4.45 and 3 P.M.; on Sundays, at 9 P.M.

A. F. SMITH, Supt.

U. S. MAIL AND EXPRESS ROUTE

DIRECT FOR

Iowa, Kansas and Nebraska.

CHICAGO, BURLINGTON & QUINCY RAILROAD.

THE ONLY DIRECT ROUTE FROM

CHICAGO TO AURORA, MENDOTA, PRINCETON

GALESBURG, QUINCY, BURLINGTON, ANY PART

OF SOUTHERN OR CENTRAL IOWA, KANSAS

OR NEBRASKA.

PASSENGER TRAINS leave the Central Depot, foot of South Water street, CHICAGO, daily as follows:—

9.45 A.M.—MORNING EXPRESS.—Connecting at Mendota with Illinois Central Railroad, north for Alton, Dixon, Galena and Dunleith, south for La Salle, Bloomington, Decatur, Springfield, Jacksonville, St. Louis, Cairo, &c.; at Galesburg with Northern Cross R.R. for Quincy, &c.; and at Burlington with Burlington and Missouri River R.R., and with Packets for points up and down the Mississippi river.

8.45 P.M.—EVENING EXPRESS.—Making same connections as above.

NO TRAIN SATURDAY EVENING.

ONE TRAIN SUNDAY, 8.45 P.M.

BAGGAGE CHECKED THROUGH TO BURLINGTON AND QUINCY.

THROUGH TICKETS can be procured at all the principal eastern railroad offices and in Chicago at the Depot and at the Michigan Central R. R. office, corner of Lake and Dearborn streets, opposite the Tremont House.

SAM'L POWELL, Gen. Ticket Agent.

C. G. HAMMOND, Gen. Supt.

Philadelphia, Wilmington & Baltimore Railroad.

UNITED STATES MAIL ROUTE TO THE SOUTH AND WEST.

Trains will leave the Southern and Western Station, corner Broad and Prime streets, Philadelphia, at 8.30 A.M. 12.45, 3.45 and 11 P.M.

FARE BY THROUGH TICKETS TO THE SOUTH.

From New York to Wilmington. \$15.00

do do Norfolk. 5.00

From Philadelphia to Wilmington. 14.00

do do Norfolk. 5.00

do do Petersburg. 5.00

do do Richmond. 5.00

FARE BY THROUGH TICKETS TO THE WEST.

From New York to Cincinnati. \$17.00

do do Louisville. 19.00

From New York to Indianapolis. 19.00

From Philadelphia to Cincinnati. 16.00

do do Louisville. 18.00

An extra charge will be made for meals and state rooms on board the boat.

GEORGE A. PARKER, Supt.